



# Product catalog

## Industrial solutions



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## About DKC company



**The DKC international company, established in August 1998, has gained a strong leading position on the global electrotechnical market. Rapidly developing its production and introducing new high performance technology, DKC today is among the largest producers of cable management systems and low-voltage equipment in Russia and in Europe.**

The aim of DKC is to provide the latest industry solutions and high-quality products to the global electrotechnical market. Over the past few years the DKC company has made great progress and is constantly striving for new achievements.

### **Product range**

The company product range involves more than 26 000 components and accessories, combined into several basic groups: cable ducts, metal and plastic tubes, metal and plastic trays, low-voltage equipment, air-conditioning systems, busbars, lightning protection and grounding. Due to active research works and development of new materials and products DKC has managed to collect an impressive list of its own patents, that would enable the DKC company to acquire the status of an innovative producer.

### **Coverage**

DKC has its own production and warehousing facilities in several countries - Russia, Ukraine, Italy, Hungary and Romania. Regional representative offices of the company operate in Russia, CIS countries and abroad. The products are being delivered to Latin America, West and Central Africa.

### **Sales strategy**

DKC doesn't sell its goods to clients directly. All the products come through a wide distribution network. A strong sales policy allows DKC to timely control end-users prices as well as availability of the goods on the market.

### **Support**

There are a lot of technical and sales trainings for distributors and their clients organized by DKC. DKC provides individual approach to each partner, and also a strong marketing support.

### **Quality**

The DKC company's regular certification of the quality management system for compliance to the international standard ISO 9001 helps to constantly promote the quality of management and production processes and its world standards-oriented approach. DKC products are the benchmark of quality for the entire industry.

### **Social policy**

We are sure that to be a leader on the market it's absolutely necessary to continuously support and develop our company's staff and the electrical industry as a whole. DKC opens up new projects for high schools, supports young talents, takes active part in improving the installation process.

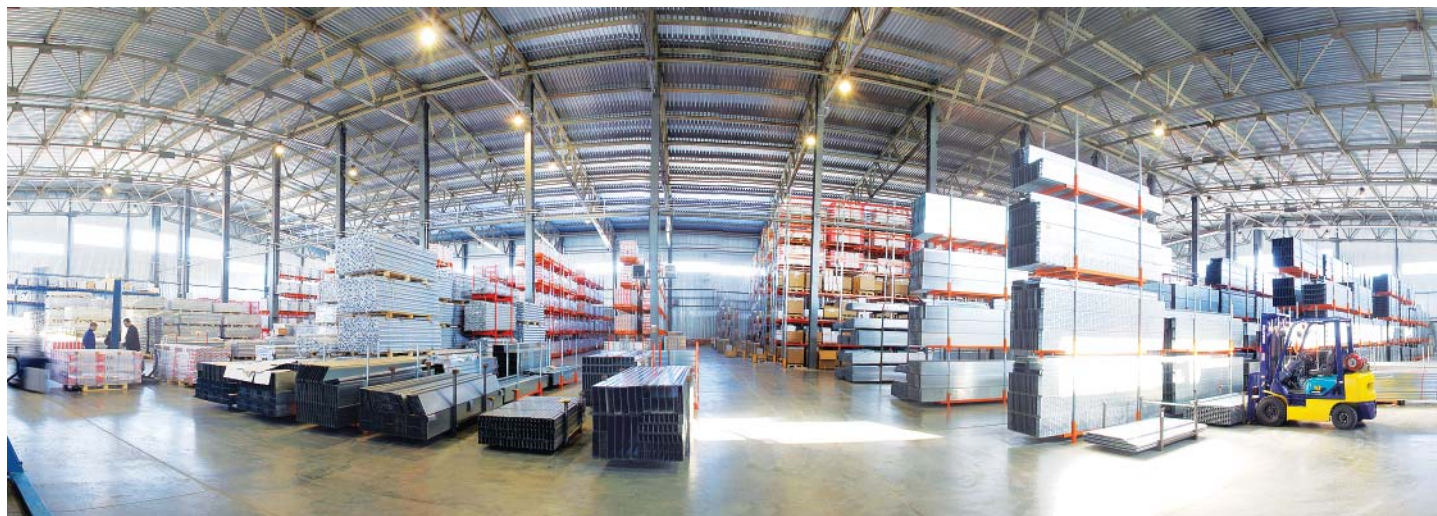
### **Industry solutions**

The DKC company has its own engineering service which provides support to the partners in designing complex projects on creating of cable routes inside and outside industrial, commercial and living premises. Our specialists have significant experience in industry solutions in the oil and gas industry, telecommunications, infrastructure projects and many other areas. The DKC company has developed a special "Album of standard solutions" for laying of cable routes on the basis of self-produced metal cable trays. The standard solutions provided in this Album are the most versatile in use, as they are applied in the most of the projects of industrial, commercial and civil construction.

### **Projects**

DKC products are preferred by many suppliers and delivered to a great number of important objects, including: space center "Vostochnij", compressor plant "Kazachiya" of gas pipe-line "South stream", Alabyano-Baltic tunnel, GOK Miheevskiy, Rosneft "Achinskiy NPZ", rocket plant of Concern PVO "Almaz-Antey", Olympic objects in Sochi, the bridge to the island Russkiy, nuclear power station in Bushehr, Moscow metro.

## Advantages of Cooperation with DKC



### For distributors

#### Financial benefit

High profitability of DKC sales

High brand awareness

No dumping due to strict control of observance of the established discount range on the part of DKC

Favorable financial and credit terms of a distribution contract

#### Logistics and warehouse

Information about the condition of the warehouse updated daily

Free and fast delivery of products throughout the Russian Federation to any regional warehouse of a distributor

Detailed planning of production and shipping schedule

#### Service

Online system of ordering DKC products

Opportunity to buy everything at once at a single location

DKC is the only Russian manufacturer of a full range of cable support systems

Brand labelling of all products for automation of warehouse accounting

Placing information about the distributor and all their trade outlets on the DKC website

#### Marketing

Financial support of regional marketing programs

Free provision of demonstration stands, demos, printed catalogues and promotional materials

A system of online-training on the DKC website

#### Support

Involvement of the DKC specialists in seminars and presentations for the customers

An annual training program throughout Russia

Provision of engineering support when designing complex objects

Continuously updated normative and technical documentation for all the products

### For designers

Complementary and compatible systems of products

Annually updated complete catalogue of products with technical characteristics of the products and accessories, the detailed drawings of the system components

Technical assistance on the entire range of products by phone or via DKC site

Open access to all the required 2D- and 3D- drawings of the products, which are compatible with the most common design programmes

Complete catalogue of products updated on a regular basis

Consultations and support in complex design solutions

### For end users

High quality of the products

Optimal delivery dates

Availability of all the necessary certificates and test protocols

Detailed mounting and assembling instructions

High quality mounting by skilled specialists

Possibility to provide training on mounting and operation of the equipment





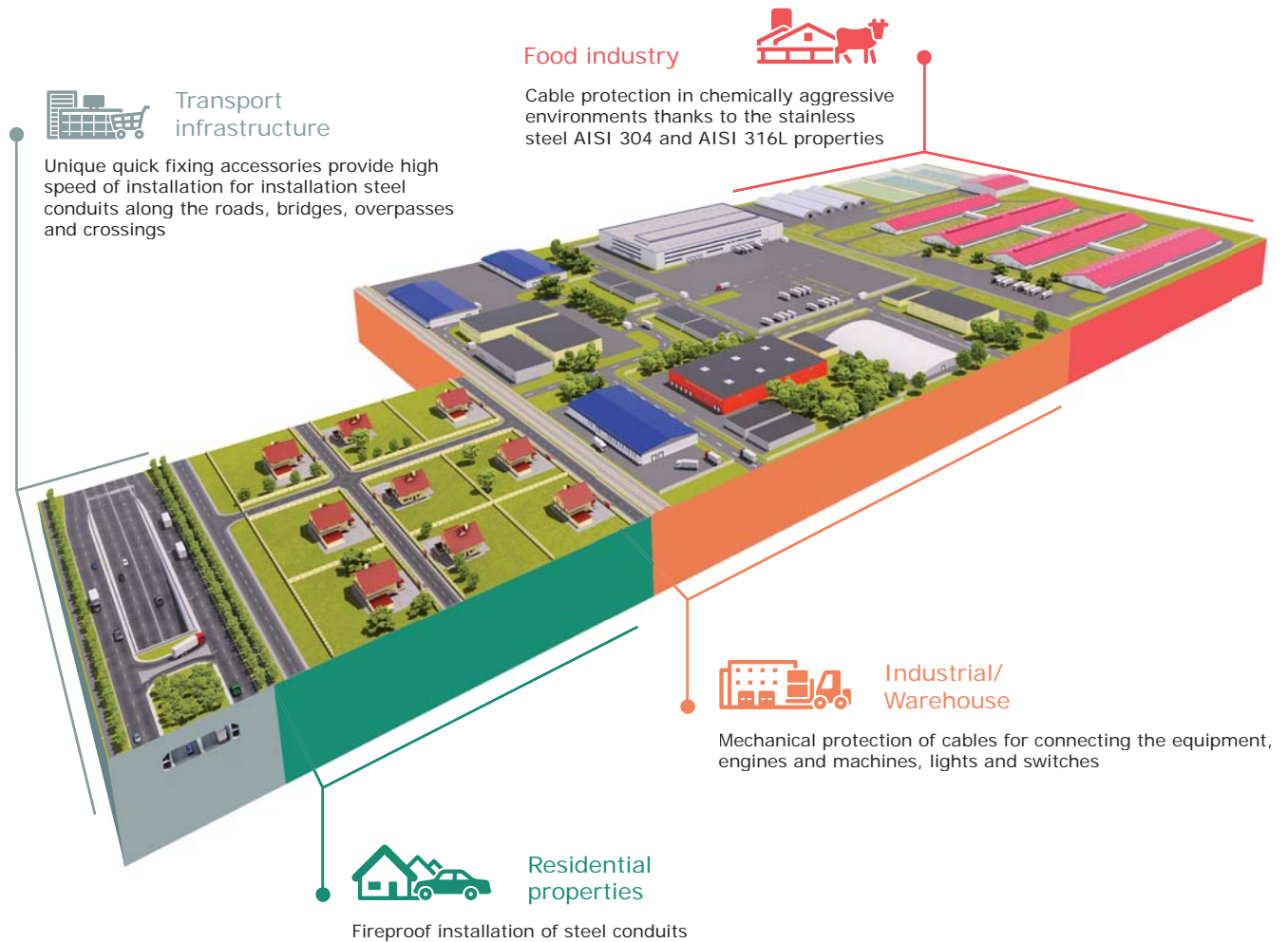
## **Metal rigid and flexible conduits "Cosmec"**

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## System of metal conduits for electrical installation

### Areas of application

A system of metal conduits for electrical installation is designed for reliable protection of cables in the industrial equipment and commercial real estate. Conduits without coating is non-flammable and is used in various fields where it is necessary to ensure thermal stability and high resistance to mechanical damage. High flexibility, abrasion resistance, impact resistance, UV light, aggressive action of oils, solvents and other fuels, protection against electromagnetic interference are the undeniable advantages of the system of metal conduits. Various types of flexible and rigid conduits with accessories allows to build a robust system of electrical wiring with a high degree of protection against dust and moisture.



## Range of products

Wide range of rigid and flexible conduits and their accessories with different kind of coatings and base materials allows to create a complex system with requirements on temperature conditions, chemical resistance, mechanical strength.

The unique patented system of conduits and accessories in stainless steel grades AISI 304 and AISI 316L for applications at food and chemical industries.

## Quality

High quality metal conduits by DKC conform to strict criteria of European standards.

EN 61386-1 Conduit systems for electrical installations

IEC 423 Conduits for electrical installations

IEC 60670-CEI 23-48 Boxes and enclosures for electrical accessories for household and similar fixed electrical installations



European Directive 2002/95/EC (RoHS)

UNI CEI 11170-3:2005 Railway and tramway vehicles

## Convenience of installation:

- special patented quick-fix accessories provide easy and quick installation, IP66/IP67 degree of protection against dust and humidity without additional accessories due to self-locking mechanism;
- a unique connector for connection metal rigid and flexible conduits does not require installation of junction boxes;
- special double locking connectors for metal flexible conduits protected by steel braid.

## Benefits

### Reliability:

- conduit construction with no burrs, defects or sharp edges that could damage cable or arms during installation;
- high corrosion resistance of flexible conduits (steel according to EN 10346);
- stainless steel for use in food and chemical industry, as well as in aggressive environments;
- junction boxes are made of painted aluminum and have good corrosion resistance;
- polyurethane foam is applied around the perimeter of the junction box, provides a reliable seal.

### Designing easily:

- complete system of flexible and rigid conduits, list of accessories and adapters allow to perform any task on the design and electrical installation;
- galvanized and stainless steel conduits with different types of polymer coatings allow to choose optimal solution for various operating conditions.

### Easy to install:

- installation of conduits and accessories is easy and reliable and provide a high sealing degree (up to IP67);
- unique reinforced lock construction ensures the integrity during installation and bends;
- high tensile strength due to reinforced interlocking system;
- quick fixing accessories enhance the quality and speed of installation.



## Features of flexible metal conduits

### The thickness of the zinc coating

- metal flexible conduit are made of high quality steel according to EN 10346, sendzimir galvanized;
- service life of galvanized metal conduits indoors with a clean atmosphere is at least 15 years

### Fireproof material

- installation and operating temperature: from -45 to +250 °C

### Accessories

- perfect connection;
- perfect sealing (for tubes with polymer coating);
- simple and reliable installation;
- wide range of accessories

### Benefits of reinforced interlocking

- high tensile strength;
- high rate of elongation at break;
- excellent reliability at bending



Reinforced interlocking



Simple interlocking

## Features of accesories for metal flexible conduits

### Metal flexible conduit

made of galvanised steel in vacuum coating

### Tightening nut

- nickel-plated brass;
- high chemical resistance;
- 6 edges for tightening spanner

### Connector body

- nickel-plated brass;
- perfectly smooth internal surface eliminates the possibility of damage the cable during installation;
- high durability and reliability of connectors;
- high chemical resistance

### Thread

Metric thread according to EN 60423

### Electrical circuit continuity

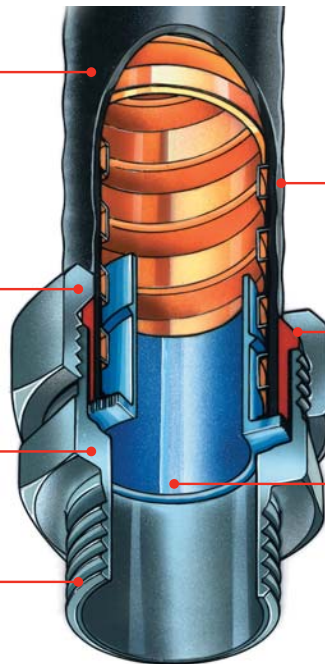
- electrical contact "Cosmec" metal conduits and the system of accessories;
- earthing without brazing and violations of vacuum covering;
- special grounding nut for connection to painted earthing equipment (sold separately)

### Locking bushing made of polyamide

It reliably fixes connector on a conduit, ensuring a high degree of sealing IP67

### Zinc alloy "ZAMAK" contact bushing

- provide reliable electrical contact;
- cover sharp edges of flexible conduit;
- provide high tensile strenght

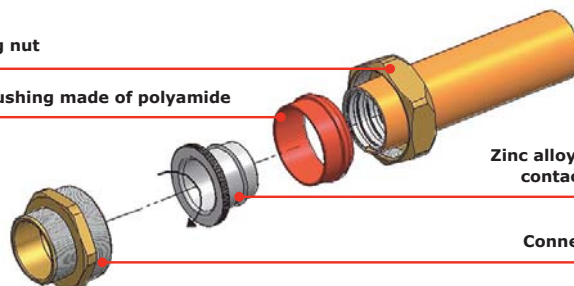


Tightening nut

Locking bushing made of polyamide

Zinc alloy "ZAMAK" contact bushing

Connector body

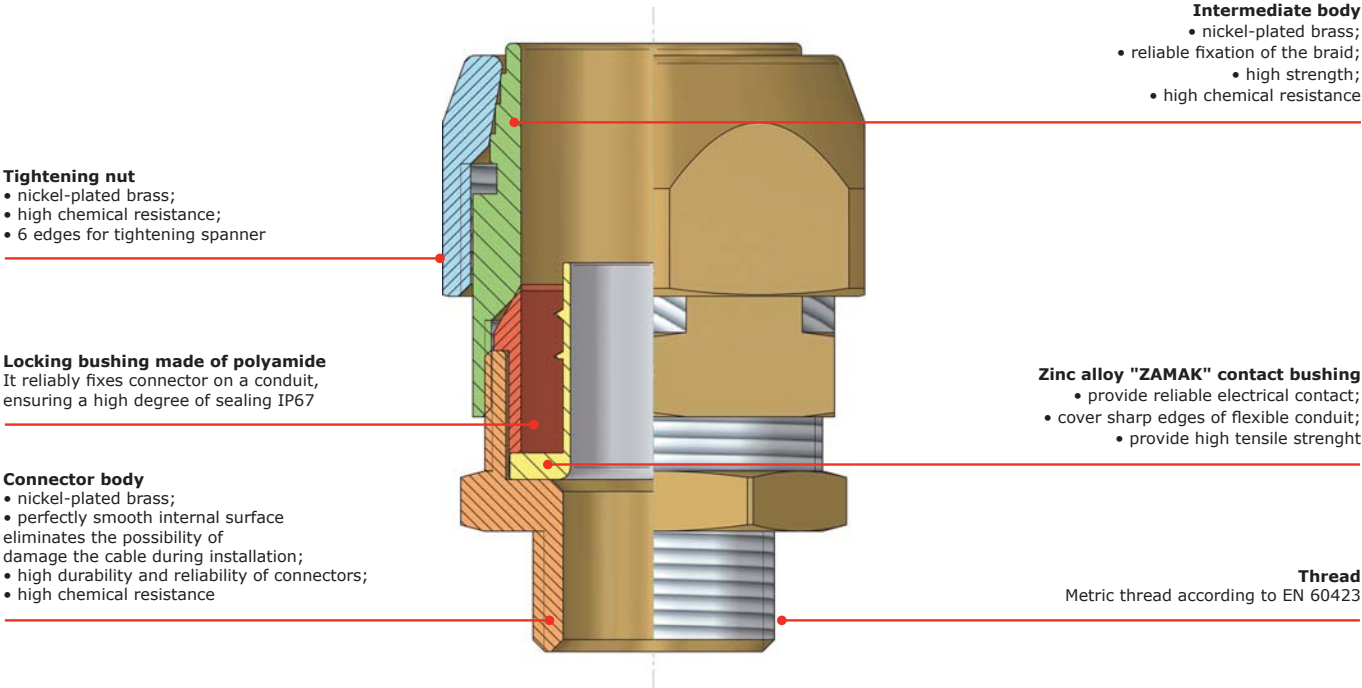


Lock nut and sealing gasket for thread supplied if necessary.

Double locking connectors for metal conduits protected by steel braid

Special design solutions are used for flexible conduits protected by steel braid to fix it. All connectors are made of nickel-plated brass and provide a double lock as conduits and braid.

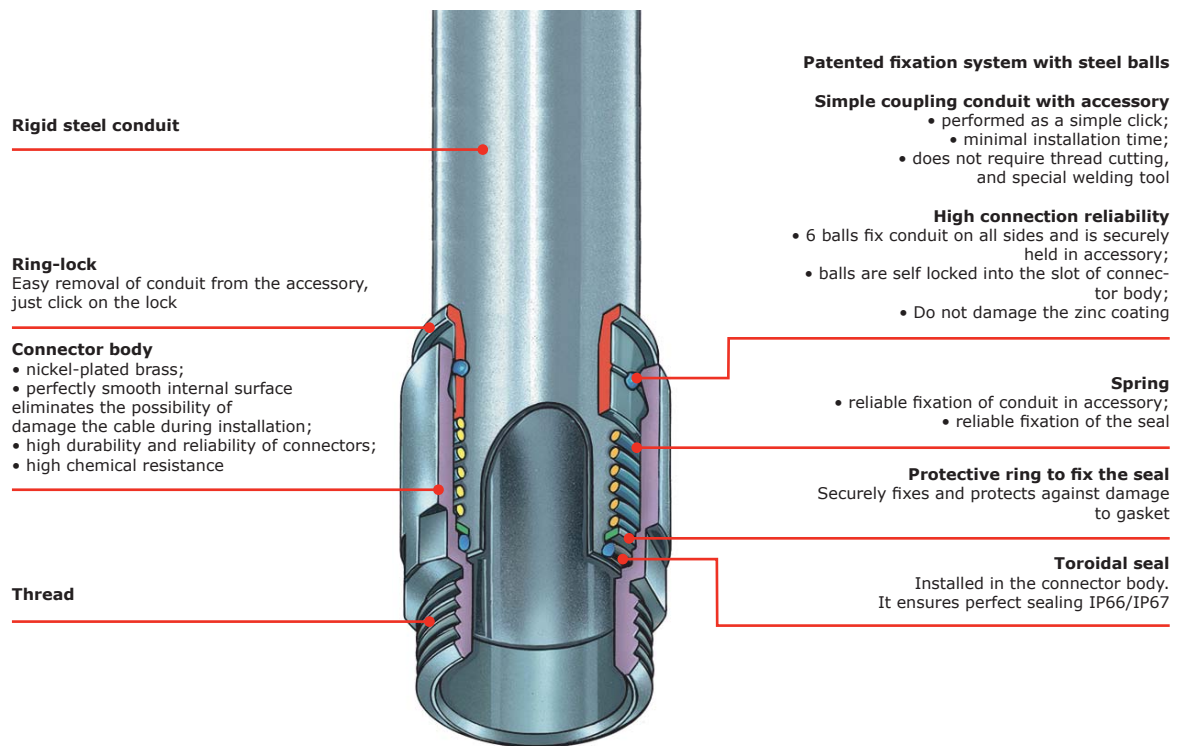
- This solution allows to provide a number of advantages:
- high tensile strength;
  - a high degree of sealing for all braided metal conduits;
  - prevent possible damage to the hands on the edge of the braid;
  - reliable fixation of the braid on all sides



Double locking connectors can be two types. A type of connectors depends on the type of the covering of metal flexible conduit, which you plan to use. For flexible metal conduits with smooth coating and steel braid is used T0 type, for conduits with vacuum coating and braid – version T1.

Type	T0	T1
Design and components		
Used in combination with	Metal flexible conduits in smooth coating and protected by braid	Metal flexible conduits with vacuum coating and protected by braid
Type of flexible conduit	 607ETX	 607T1
The degree of dust and moisture protection IP	IP66/IP67	IP66/IP67

## Features of flexible metal conduits



## Quick fixing system

- quick fixing system allows one movement safe fix a rigid conduit in a accessory;
- steel balls under spring pressure and when entering into the connector conduit is blocked in a special slot. This ensures a high tension load of conduit connection and ensures the continuity of the electric contact;
- there is no need for thread cutting;
- there is no need for special equipment for installation;
- there is no need for welding;
- to remove the conduit from the accessory, just press on the Ring-lock and remove the conduit;
- unique system of fast and reliable fixation of conduits and accessory greatly reduces installation time.

## Connectors sealing system

Sealing system provides a high degree of sealing IP66/IP67. To obtain a guaranteed seal is necessary to perform a few simple rules:

- conduit must be cut at a 90° angle and deburred to avoid damage to the seal and the cable;
- conduit is inserted into the accessory with a slight pressing and gently rotated simultaneously to overcome the resistance of the seal.



## System components

Galvanized metal flexible conduits made of galvanized sendzimir tape in accordance with the European standard EN 10346, with different types of coatings and materials. A wide range of flexible conduits for the best option for installation a cable in the harshest operating conditions and at the same time provide flexibility when connecting to various equipment

**Galvanized steel metal flexible conduit** has a wide temperature range of installation and operation, has a special flexibility and high mechanical strength. Non-combustible material of flexible conduit can be used in installations with heating ambient air to +250 °C.

**Metal flexible conduits with vacuum PVC coating** – has flexibility and high mechanical strength. The vacuum coating has a minimal impact on flexibility, while providing a high chemical resistance to many types of greases and oils. Protection against moisture and dust without additional sealing – IP44, with sealings – IP66/IP67.

**Metal flexible conduits in smooth PVC coating** – has flexibility and high mechanical strength. Covered with PVC, it provides a perfect sealing (IP66/IP67) and cable protection from most oils and acids. The marking on the metal flexible conduit indicates the length of every meter for ease of installation. Suitable for manufacturing companies in areas where a high level of mechanical protection of the cable and the preservation of flexibility.

**Metal flexible conduits with vacuum PVC coating and protected by galvanised steel braid** has the flexibility and high mechanical strength. This type of conduit is cable protection against mechanical impacts, abrasion, vandalism, rodents, dust and water penetration, and ultraviolet and electromagnetic influence in a broad range of frequencies.

**Metal flexible conduits in smooth EVA coating** has flexibility and high mechanical strength. Metal conduit covered with a dense coating of self-extinguishing thermoplastic material with low smoke emission and low toxicity of combustion products not containing halogen (Halogen free), is used in crowded places, railway transport. The high degree of sealing and chemical resistance to oils and acids is an additional advantage of the metal conduit.

**Metal flexible conduits in smooth EVA coating and protected by stainless steel AISI 304 braid** – has flexibility and high mechanical strength. It is self-extinguishing material with low smoke emission and low toxicity of combustion products and does not contain halogens. Stainless steel braid – it's extreme reliability at break, resistance to abrasion, wear, electrical sparks, protection against electromagnetic interference in a wide range of frequencies.

**Accessories for metal flexible conduits** – can make connection of all types of metal flexible conduits by DKC, while maintaining a high degree of sealing.

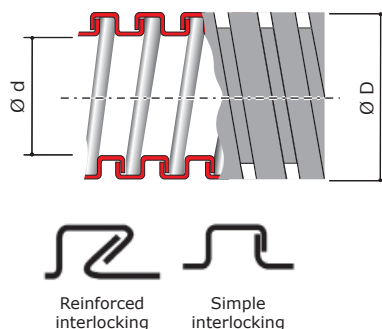
**Rigid smooth conduits of hot galvanized steel sendzimir** – characterized by high mechanical strength and are indispensable in harsh industrial environments that require reliable protection against mechanical and other aggressive influences. Rigid conduits also are indispensable for electrical installation inside of combustible bases in the construction of wooden houses and reconstruction of combustible floors, installing in attics and basements.

**The rigid smooth conduits of stainless steel AISI 304 and AISI 316L** – characterized by high corrosion resistance and are used in aggressive environments in the food, metallurgical, chemical and pharmaceutical industries. The inner welding seam is removed for a perfect sliding cable when installation.

**Accessories for rigid steel conduits** – manufactured by patented technology and provide the most convenient and fast fixation.

**Junction boxes made of aluminum alloy with epoxy painting** – are resistant to mechanical stress as it is exposed to ultraviolet light. The seal of polyurethane foam, filled on the perimeter of the cover ensures a degree of dust and IP66/IP67 moisture protection.

## Galvanized steel metal flexible conduits



### Purpose:

- installation electrical, telephone, computer, TV networks, consisting of insulated wires, cords or cables .

### Distinctive features:

- non-combustible material;
- wide range of installing and operating temperatures;
- flexibility;
- a unique reinforced interlocking design that insures the integrity of metal flexible conduits for bending;
- high mechanical properties at break and compression;
- high resistance to corrosion.

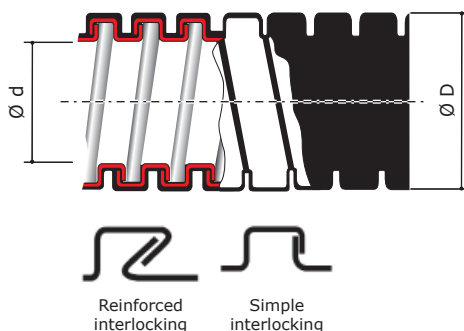
## Characteristics

Standard	produced in compliance with CEI EN 61386-1 and 61386-23
Classification code according to EN 61386-1 and EN 61386-23	3356
Climatic category	medium 2, cold 2, medium cold 2 according to GOST 15150-69
Protection level	IP40 according to GOST 14254-96 (IEC 529-89)
Installing and operating temperature	from -45 to +250 °C
Compression resistance (resistance to compression at 20 °C)	more than 750 N on 5 cm*
Tensile strength	not less than 500 N
Impact resistance at -45 °C	not less than 2 J

\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

Nominal diameter, mm	Inner diameter, mm	Outer diameter, mm	Minimum bending radius, mm	Amount in the coil, m	Type of lock	Code
10	10,0	13,0	30	50	simple interlocking	667M1013
12	12,0	15,0	35	50	simple interlocking	667M1215
15	15,5	18,5	40	50	simple interlocking	667M1518
20	20,5	24,5	50	50	reinforced interlocking	667M2024
26	26,5	30,0	70	25	reinforced interlocking	667M2630
35	35,0	39,5	90	25	reinforced interlocking	667M3539
40	40,0	44,5	105	25	reinforced interlocking	667M4044
50	50,5	54,5	130	25	reinforced interlocking	667M5054

## Metal flexible conduits with vacuum PVC coating



### Purpose:

- installation electrical, telephone, computer, TV networks, consisting of insulated wires, cords or cables.

### Distinctive features:

- resistance to flame propagation;
- a fire safety certificate;
- flexibility;
- a unique reinforced interlocking design that insures the integrity of metal flexible conduits for bending;
- high mechanical properties at break and compression;
- high chemical resistance to oils and lubricants;
- protection level with the accessories up to IP67;
- hermetic installation in humid and dusty environments.

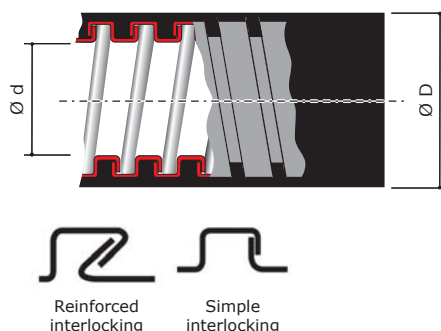
## Characteristics

Standard	produced in compliance with CEI EN 61386-1 and 61386-23
Classification code according to EN 61386-1 and EN 61386-23	3431
Protection level	IP44/IP66/IP67 according to GOST 14254-96 (IEC 529-89)
	Installing and operating temperature
	Compression resistance (resistance to compression at 20 °C)
Tensile strength	from -15 to +70 °C
Impact resistance at -15 °C	more than 1250 N on 5 cm* for the conduits with the nominal diameter less than 26 mm
	Combustion category
Compliance with the fire safety requirements	not less than 500 N for the conduits with the nominal diameter less than 15 mm
	Color
Impact resistance at -15 °C	not less than 6 J
Combustion category	PV-0 according to GOST 28779
Compliance with the fire safety requirements	according to GOST P 53313
Color	grey, black

\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

Nominal diameter, mm	Inner diameter, mm	Outer diameter, mm	Minimum bending radius, mm	Amount in the coil, m	Type of lock	Code	
						grey	black
10	10,0	14,0	30	50	simple interlocking	6071-010	6071-010N
12	12,0	16,0	35	50	simple interlocking	6071-012	6071-012N
15	15,5	19,5	40	50	simple interlocking	6071-015	6071-015N
20	20,5	25,5	60	50	reinforced interlocking	6071-020	6071-020N
26	26,5	31,5	80	25	reinforced interlocking	6071-027	6071-027N
35	35,0	41,0	120	25	reinforced interlocking	6071-035	6071-035N
40	40,0	46,0	150	25	reinforced interlocking	6071-040	6071-040N
50	50,5	57,0	200	25	reinforced interlocking	6071-050	6071-050N

## Metal flexible conduits in smooth PVC coating



### Purpose:

- installation electrical, telephone, computer, TV networks, consisting of insulated wires, cords or cables.

### Distinctive features:

- resistance to flame propagation;
- a fire safety certificate;
- covered with a tight smooth PVC coating;
- perfect mechanical properties at break and compression;
- high chemical resistance to oils and lubricants;
- hermetic installation in humid and dusty environments;
- flexibility;
- marking with indication of the length for easy installation;
- optimal solution for manufacturing companies.

## Characteristics

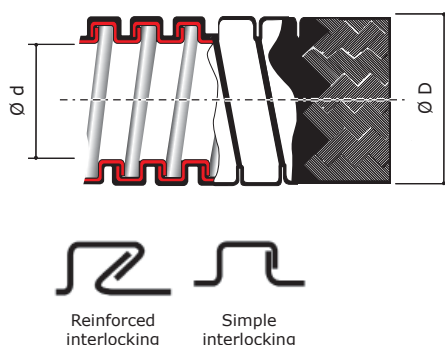
Standard	produced in compliance with CEI EN 61386-1 and 61386-23
Classification code according to EN 61386-1 and EN 61386-23	3431
Protection level	IP66/IP67 according to GOST 14254-96 (IEC 529-89)
	IP66 under dynamic impact at laying
	IP67 at static laying
Installing and operating temperature	from -15 to +70 °C
Compression resistance (resistance to compression at 20 °C)	more than 1250 N on 5 cm* for the conduits with the nominal diameter less than 26 mm
	more than 750 N on 5 cm* for the conduits with the nominal diameter more than 35 mm
Tensile strength	not less than 500 N for the conduits with the nominal diameter less than 15 mm
	not less than 1000 N for the conduits with the nominal diameter more than 20 mm
Impact resistance at -15 °C	not less than 6 J
Combustion category	ΠB-0 according to GOST 28779
Compliance with the fire safety requirements	according to GOST P 53313
Color	grey, black

\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

Nominal diameter, mm	Inner diameter, mm	Outer diameter, mm	Minimum bending radius, mm	Amount in the coil, m	Type of lock	Code	
						grey	black
10	10,0	15,0	50	50	simple interlocking	6070-10	6070-10N
12	12,0	18,0	60	50	simple interlocking	6070-12	6070-12N
15	15,5	21,0	70	50	simple interlocking	6070-16	6070-16N
20	20,5	27,0	90	50	reinforced interlocking	6070-22	6070-22N
26	26,5	34,0	120	25	reinforced interlocking	6070-32	6070-32N
35	35,0	43,0	150	25	reinforced interlocking	6070-38	6070-38N
40	40,0	48,0	200	25	reinforced interlocking	6070-40	6070-40N
50	50,5	58,5	250	25	reinforced interlocking	6070-50	6070-50N



## Metal flexible conduits with vacuum PVC coating and protected by galvanised steel braid



### Purpose:

- installation electrical, telephone, computer, TV networks, consisting of insulated wires, cords or cables.

### Distinctive features:

- resistance to flame propagation;
- a fire safety certificate;
- covered with a hermetic PVC coating and protected by galvanized steel braiding;
- perfect mechanical properties at break and compression;
- protection against mechanical impact, abrasion, vandalism, rodents, water or dust permeation, ultraviolet radiation and electromagnetic impacts in a wide frequency band;
- optimal solution for manufacturing companies, production workshops in heavy industrial conditions.

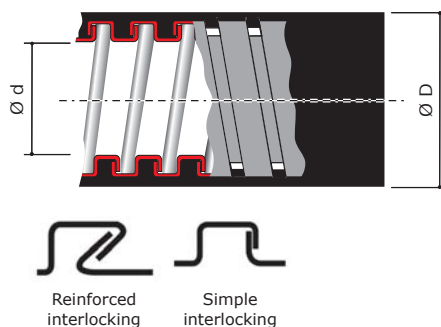
### Characteristics

Standard	produced in compliance with CEI EN 61386-1 and 61386-23
Classification code according to EN 61386-1 and EN 61386-23	3431
Protection level	IP44/IP66/IP67 according to GOST 14254-96 (IEC 529-89)
	IP44 without a sealing muff
	IP66/IP67 with a sealing muff 66BTP
Installing and operating temperature	from -15 to +70 °C
Compression resistance (resistance to compression at 20 °C)	more than 1250 N on 5 cm* for the conduits with the nominal diameter less than 26 mm
	more than 750 N on 5 cm* for the conduits with the nominal diameter more than 35 mm
Tensile strength	not less than 500 N for the conduits with the nominal diameter less than 15 mm
	not less than 1000 N for the conduits with the nominal diameter more than 20 mm
Impact resistance at -15 °C	not less than 6 J
Combustion category	PV-0 according to GOST 28779
Compliance with the fire safety requirements	according to GOST P 53313
EMC-shielding	30-230 MHz level 1, (min. attenuation 35 dB) according to IEC 61587

\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

Nominal diameter, mm	Inner diameter, mm	Outer diameter, mm	Minimum bending radius, mm	Amount in the coil, m	Type of lock	Code
10	10,0	14,0	30	50	simple interlocking	6071T-010
12	12,0	16,0	35	50	simple interlocking	6071T-012
15	15,5	19,5	50	50	simple interlocking	6071T-016
20	20,5	25,5	65	50	reinforced interlocking	6071T-022
26	26,5	31,5	80	25	reinforced interlocking	6071T-032
35	35,0	41,0	120	25	reinforced interlocking	6071T-038
40	40,0	46,0	150	25	reinforced interlocking	6071T-040
50	50,5	57,0	220	25	reinforced interlocking	6071T-050

## Metal flexible conduits in smooth EVA coating



### Purpose:

- installation electrical, telephone, computer, TV networks, consisting of insulated wires, cords or cables.

### Distinctive features:

- resistance to flame propagation;
- a fire safety certificate;
- covered with a smooth EVA (ethylene vinyl acetate) coating;
- perfect mechanical properties at break and compression;
- air-tight installation in humid and dusty environments;
- self-extinguishing material with low smoke and low toxicity of combustion products;
- high chemical resistance to oils and lubricants;
- halogen free;
- optimal solution for the cable protection in places of staying of masses of people and on the railway transport objects.

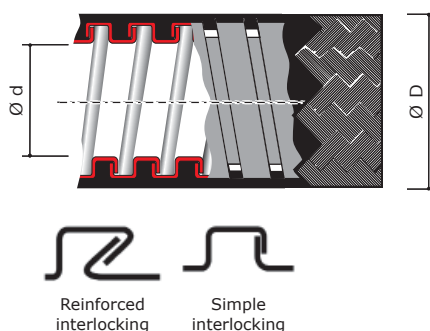
## Characteristics

Standard	produced in compliance with CEI EN 61386-1, 61386-23, UNI CEI 11170-3:2005
Classification code according to EN 61386-1 and EN 61386-23	3441
Protection level	IP66/IP67 according to GOST 14254-96 (IEC 529-89)
	IP66 under dynamic impact at laying
	IP67 at static laying
Installing and operating temperature	from -25 to +70 °C
Compression resistance (resistance to compression at 20 °C)	more than 1250 N on 5 cm* for the conduits with the nominal diameter less than 26 mm
	more than 750 N on 5 cm* for the conduits with the nominal diameter more than 35 mm
Tensile strength	not less than 500 N for the conduits with the nominal diameter less than 15 mm
	not less than 1000 N for the conduits with the nominal diameter more than 20 mm
Impact resistance at -15 °C	not less than 6 J
Combustion category	ПВ-0 according to GOST 28779
Compliance with the fire safety requirements	according to GOST P 53313
Halogen content	0 %
Color	grey

\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

Nominal diameter, mm	Inner diameter, mm	Outer diameter, mm	Minimum bending radius, mm	Amount in the coil, m	Type of lock	Code
10	10,0	15,0	60	50	simple interlocking	607E010
12	12,0	18,0	70	50	simple interlocking	607E012
15	15,5	21,0	90	50	simple interlocking	607E016
20	20,5	27,0	120	50	reinforced interlocking	607E022
26	26,5	34,0	140	25	reinforced interlocking	607E032
35	35,0	43,0	190	25	reinforced interlocking	607E038
40	40,0	48,0	240	25	reinforced interlocking	607E040
50	50,5	58,5	300	25	reinforced interlocking	607E050

## Metal flexible conduits in smooth EVA coating and protected by stainless steel AISI 304 braid



### Purpose:

- installation electrical, telephone, computer, TV networks, consisting of insulated wires, cords or cables.

### Distinctive features:

- resistance to flame propagation;
- a fire safety certificate;
- covered with a smooth EVA (ethylene vinyl acetate) coating and protected by stainless steel braiding;
- perfect mechanical properties at break and compression;
- self-extinguishing material with low smoke and low toxicity of combustion products;
- halogen free;
- resistance to abrasion and deterioration, electric sparks, protection against electromagnetic impacts in a wide frequency band;
- the maximum cable protection in places of staying of masses of people and on the railway transport objects.

### Characteristics

Standard	produced in compliance with CEI EN 61386-1, 61386-23, UNI CEI 11170-3:2005
Classification code according to EN 61386-1 and EN 61386-23	3441
Protection level	IP66/IP67 according to GOST 14254-96 (IEC 529-89)
	IP66 under dynamic impact at laying
	IP67 at static laying
Installing and operating temperature	from -25 to +70 °C
Compression resistance (resistance to compression at 20 °C)	more than 1250 N on 5 cm* for the conduits with the nominal diameter less than 26 mm
	more than 750 N on 5 cm* for the conduits with the nominal diameter more than 35 mm
Tensile strength	not less than 500 N for the conduits with the nominal diameter less than 15 mm
	not less than 1000 N for the conduits with the nominal diameter more than 20 mm
Impact resistance at -15 °C	not less than 6 J
Combustion category	ΠB-0 according to GOST 28779
Compliance with the fire safety requirements	according to GOST P 53313
Halogen content	0 %
EMC-shielding	30-230 MHz level 1, (min. attenuation 35 dB) according to IEC 61587


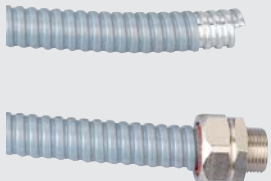




\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

Nominal diameter, mm	Inner diameter, mm	Outer diameter, mm	Minimum bending radius, mm	Amount in the coil, m	Type of lock	Code
10	10,0	15,0	60	50	simple interlocking	607ETX010
12	12,0	18,0	70	50	simple interlocking	607ETX012
15	15,5	21,0	90	50	simple interlocking	607ETX016
20	20,5	27,0	120	50	reinforced interlocking	607ETX022
26	26,5	34,0	140	25	reinforced interlocking	607ETX032
35	35,0	43,0	190	25	reinforced interlocking	607ETX038
40	40,0	48,0	240	25	reinforced interlocking	607ETX040
50	50,5	58,5	300	25	reinforced interlocking	607ETX050

## Accessories for metal flexible conduits

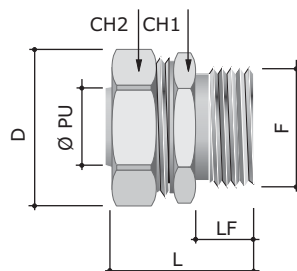
The metal flexible conduits accessories are made from nickel-plated brass. The nickel-plated brass coating ensures high resistance to environmental influences and perfect chemical resistance.

Depending on the type of the metal conduit, the muffs metal flexible conduit-box with the internal and external thread (codes 6014, 6014G, 6015) provide with the moisture and dust protection according to the table below:

Image of the metal flexible conduit	Series code of the metal flexible conduit	System IP rating according to GOST 14254-96
	667M	IP40
	6071	IP44 without sealing IP66/IP67 with a sealing muff 66BTP
	6071T	IP44 without sealing IP66/IP67 with a sealing muff 66BTP
	6070	IP66/IP67
	607E	
	607ETX	



## Connector metal flexible conduit-box with the external thread



### Purpose:

- input of the metal flexible conduit into the equipment bases, enclosures, panels, junction boxes.

### Characteristics:

- material – nickel-plated brass;
- operating temperature – from –40 to +80 °C;
- simple and reliable joining with a metal flexible conduit.

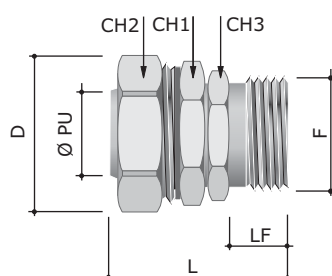
### Set:

- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Nominal diameter of the metal flexible conduit*, mm	Dimensions, mm							Packing, pcs.	Code
	F	Ø PU	CH 1	CH 2	D	LF	L		
10	M16x1,5	8,5	22	24	26,5	10	28,0	10	6014-1016
12	M16x1,5	10,0	24	26	28,5	10	29,0	10	6014-16A
15	M16x1,5	12,0	28	30	33,0	10	32,3	10	6014-1616
15	M20x1,5	13,8	28	30	33,0	10	32,3	10	6014-20A
20	M20x1,5	16,0	35	37	40,7	10	35,0	10	6014-2020
20	M25x1,5	18,0	35	37	40,7	12	35,0	10	6014-25A
26	M25x1,5	20,0	42	45	50,5	12	38,5	10	6014-2527
26	M32x1,5	24,0	42	45	50,5	13	38,5	10	6014-32A
35	M40x1,5	32,0	50	52	57,0	14	43,0	5	6014-4035
40	M40x1,5	34,0	58	61	64,0	14	44,5	5	6014-40A
40	M50x1,5	38,0	58	61	64,0	18	48,5	5	6014-5040
50	M50x1,5	44,0	70	74	78,0	18	54,5	5	6014-50A
50	M63x1,5	48,0	70	74	78,0	18	54,5	1	6014-6350

\* Designed to connect with a metal conduit of the appropriate nominal diameter (for example: the connector 6014-1016 joins with the metal conduit 667M1013 or 6071-010, and so on)

## Rotating connector metal conduit-box with the external thread



### Purpose:

- input of the metal conduit into the equipment bases, enclosures, panels, junction boxes with the possible rotation of the metal conduit with IP and reliable fixation preserving.

### Characteristics:

- material – nickel-plated brass;
- operating temperature – from –40 to +80 °C;
- a reliable fixation of the metal flexible conduit.

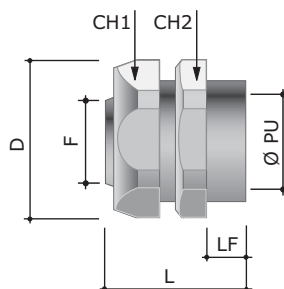
### Set:

- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Nominal diameter of the metal flexible conduit*, mm	Dimensions, mm								Packing, pcs.	Code
	F	Ø PU	CH 1	CH 2	CH 3	D	LF	L		
10	M16x1,5	8,5	22	24	20	26	10	42	10	6014-1016G
12	M16x1,5	10,0	24	26	22	28	10	44	10	6014-1216G
15	M20x1,5	13,8	28	30	26	33	10	45	10	6014-20G
20	M25x1,5	18,0	35	37	32	40	10	46	10	6014-25G
26	M32x1,5	24,0	42	45	39	50	13	53	10	6014-2732G
35	M40x1,5	32,0	50	52	50	57	14	59	7	6014-4035G
40	M50x1,5	38,0	58	61	55	64	18	65	5	6014-5040G
50	M63x1,5	48,0	70	74	70	78	18	73	1	6014-6350G

\* Designed to connect with a metal hose of the appropriate nominal diameter (for example: the connector 6014-1016G joins with the metal conduit 667M1013 or 6071-010 and so on)

## Connector metal conduit-box with the internal thread



### Purpose:

- input of the metal flexible conduit into the equipment bases, enclosures, panels, junction boxes.

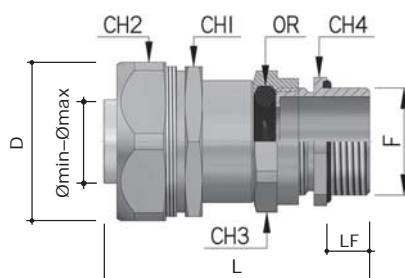
### Characteristics:

- material – nickel-plated brass;
- operating temperature – from –40 to +80 °C;
- easy input of the metal conduit into equipment with the external metric thread (use adapter for the inch thread);
- joining with connectors with the external thread (code 6014-XX) forms a reliable and aesthetically connection.

Nominal diameter of the metal flexible conduit*,mm	Dimensions, mm							Packing, pcs.	Code
	F	Ø PU	CH 1	CH 2	D	LF	L		
10	M16x1,5	8,5	22	24	26	12	27	10	6015-10A
12	M16x1,5	10,0	24	26	28	13	28	10	6015-12A
15	M16x1,5	13,8	28	30	33	14,5	32	10	6015-16A
15	M20x1,5	13,8	28	30	33	14,5	32	10	6015-20
20	M20x1,5	18,0	35	37	40	14	33	10	6015-2020
20	M25x1,5	18,0	35	37	40	16	35	10	6015-25
26	M25x1,5	23,0	42	45	50	16	38	10	6015-2527
26	M32x1,5	24,0	42	45	50	16	38	10	6015-32A
35	M32x1,5	30,0	50	52	57	17	43	10	6015-3235
35	M40x1,5	32,0	50	52	57	17	43	5	6015-4035
40	M40x1,5	38,0	58	61	64	20	48	5	6015-40
40	M50x1,5	38,0	58	61	64	23	48	5	6015-5040
50	M50x1,5	48,0	70	74	78	20,5	51	5	6015-50
50	M63x1,5	48,0	70	74	78	45	53	1	6015-6350

\* Designed to connect with a metal conduit of the appropriate nominal diameter (for example: the connector 6014-1016 joins with the metal conduit 667M1013 or 6071-010, and so on)

## Connector metal conduit-box with a hermetic sealing



### Purpose:

- a hermetic input of the metal flexible conduit into the equipment bases, enclosures, panels, junction boxes.

### Distinctive features:

- structurally combines a hermetic cable clamp with a connector for a metal flexible conduit;
- a sealing ring securely compresses a round single cable at the input into the box or the enclosure.

### Characteristics:

- material – nickel-plated brass;
- operating temperature – from –25 to +80 °C;
- protection level – IP68.

### Set:

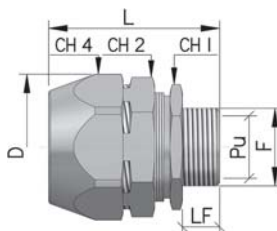
- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Nominal diameter of the metal flexible conduit*, mm	Cable diameter**, mm	Dimensions, mm								Packing, pcs.	Code
		F	CH 1	CH 2	CH 3	CH 4	D	LF	L		
10	05 ÷ 09	M12x1,5	22,0	24	20	20	26,0	10	53,5	10	6014P10M120509
10	05 ÷ 09	M16x1,5	22,0	24	20	20	26,0	10	53,5	10	6014P10M160509
10	08 ÷ 12	M20x1,5	22,0	24	24	24	26,0	10	53,5	10	6014P10M200812
12	05 ÷ 09	M12x1,5	24,0	26	20	20	28,0	10	54,5	10	6014P12M120509
12	05 ÷ 09	M16x1,5	24,0	26	20	20	28,0	10	54,5	10	6014P12M160509
12	08 ÷ 12	M20x1,5	24,0	26	24	24	28,0	10	54,5	10	6014P12M200812
15	05 ÷ 09	M12x1,5	28,0	30	20	20	33,0	10	58,0	10	6014P16M120509
15	05 ÷ 09	M16x1,5	28,0	30	20	20	33,0	10	58,0	10	6014P16M160509
15	08 ÷ 12	M20x1,5	28,0	30	24	24	33,0	10	58,0	10	6014P16M200812
15	11 ÷ 16	M25x1,5	28,0	30	30	30	33,0	10	60,0	10	6014P16M251116
20	08 ÷ 12	M20x1,5	35,0	37	24	24	40,7	10	58,5	10	6014P22M200812
20	11 ÷ 16	M20x1,5	35,0	37	30	30	40,7	10	62,5	10	6014P22M201116
20	11 ÷ 16	M25x1,5	35,0	37	30	30	40,7	10	62,5	10	6014P22M251116
20	15 ÷ 21	M32x1,5	35,0	37	36	36	40,7	10	64,5	10	6014P22M321521
26	11 ÷ 16	M20x1,5	42,0	45	30	30	50,5	10	65,7	10	6014P32M201116
26	11 ÷ 16	M25x1,5	42,0	45	30	30	50,6	10	65,7	10	6014P32M251116
26	15 ÷ 21	M25x1,5	42,0	45	36	36	50,6	10	68,0	10	6014P32M251521
26	15 ÷ 21	M32x1,5	42,0	45	36	36	50,6	10	68,0	10	6014P32M321521
26	20 ÷ 27	M40x1,5	42,0	45	45	45	50,6	10	74,5	10	6014P32M402027
35	15 ÷ 21	M32x1,5	50,0	52	36	36	57,0	10	72,5	7	6014P38M321521
35	20 ÷ 27	M40x1,5	50,0	52	45	45	57,0	12	79,0	7	6014P38M402027
40	20 ÷ 27	M40x1,5	58,0	61	45	45	64,0	12	84,5	5	6014P40M402027

\* Designed to connect with a metal conduit of the appropriate nominal diameter (for example: the connector 6014P10M120509 joins with a metal conduit 667M1013 or 6071-010 and so on)

\*\* Designed to connect with a metal conduit of the appropriate outer diameter (for example: the connector 6014P10M120509 securely compresses a cable with the outer diameter 5–9 mm)

## Double locking connectors for metal conduits protected by steel braid and input into the box



### Purpose:

- a hermetic input of the cable, protected by the metal conduit, into the equipment bases, enclosures, panels, branch boxes.

### Characteristics:

- structurally combines a hermetic cable clamp with a connector for a metal conduit;
- a sealing ring securely compresses a round single cable at the input into the box or the enclosure.

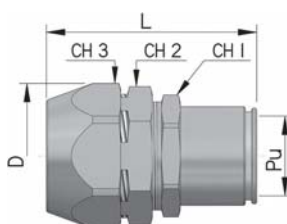
### Set:

- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Nominal diameter of the metal flexible conduit*,mm	Dimensions, mm								Packing, pcs.	Code	
	F	Ø PU	CH 1	CH 2	CH 4	LF	L	D		application with a metal conduit with smooth coating (series 607ETX)	application with a metal conduit with vacuum coating (series 6071T)
10	M16x1,5	8,5	22	26	28	9	44	31	10	T06014-1016	T16014-1016
12	M16x1,5	10,0	24	28	30	9	45	34	10	T06014-16A	T16014-16A
15	M20x1,5	13,8	28	30	35	10	51	39	10	T06014-20A	T16014-20A
20	M20x1,5	16,0	35	39	42	10	54	47	10	T06014-2020	T16014-2020
20	M25x1,5	18,0	36	39	42	12	56	47	10	T06014-25A	T16014-25A
26	M32x1,5	24,0	42	50	50	12	61	56	10	T06014-32A	T16014-32A
35	M40x1,5	32,0	50	55	60	14	61	64	5	T06014-4035	T16014-4035
40	M40x1,5	34,0	58	60	65	14	66	72	5	T06014-40A	T16014-40A
40	M50x1,5	38,0	58	60	65	18	70	72	5	T06014-5040	T16014-5040
50	M50x1,5	44,0	70	80	80	18	75	76	5	T06014-50A	T16014-50A
50	M63x1,5	48,0	70	80	80	18	75	76	1	T06014-6350	T16014-6350

\*Designed to connect with a metal conduit of the appropriate nominal diameter (for example: the connector T06014-1016 joins with the metal conduit 607ETX010, and the conduit T16014-1016 – with the metal conduit 6071T-010)

## Double fixation muff to connect a metal hose with steel braiding with a steel smooth pipe



### Purpose:

- connection of a metal conduit with steel braiding with a smooth steel conduit.

### Characteristics:

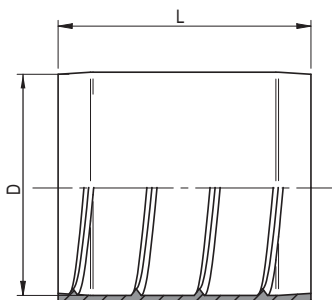
- material – nickel-plated brass;
- operating temperature – from -40 to +80 °C;
- securely fixes the braiding all around and perfectly holds in the accessory;
- high sealing level – IP66/IP67.

Nominal diameter of the metal flexible conduit*,mm	Diameter of the smooth steel conduit, mm	Dimensions, mm						Packing, pcs.	Code	
		Ø PU	CH 1	CH 2	CH 3	L	D		application with a metal conduit with smooth coating (series 607ETX)	application with a metal conduit with vacuum coating (series 6071T)
10	16,0	8,5	24	26	28	60	31	10	T06117-10N	T16117-10N
12	16,0	10,0	24	28	30	61	34	10	T06117-12N	T16117-12N
15	16,0	13,8	28	30	35	65	39	10	T06117-16N	T16117-16N
20	20,0	18,0	35	39	42	65	47	10	T06117-2020	T16117-2020
20	25,0	18,0	35	39	42	68	47	10	T06117-25N	T16117-25N
26	32,0	24,0	42	50	50	77	56	10	T06117-32N	T16117-32N
35	32,0	32,0	50	55	60	76	64	5	T06117-3235	T16117-3235
35	40,0	32,0	50	60	65	81	72	5	T06117-4035	T16117-4035
40	40,0	38,0	60	60	65	85	72	5	T06117-40	T16117-40
40	50,0	38,0	60	80	80	85	76	5	T06117-5040	T16117-5040
50	50,0	48,0	70	80	80	87	76	5	T06117-50	T16117-50

\* Designed to connect with a metal conduit of the appropriate nominal diameter (for example: the connector T06117-10N joins with the metal conduit 607ETX010 and the rigid steel conduit 16 mm, code 6008-16L3)



### Sealing muff for a vacuum metal flexible conduit



**Purpose:**

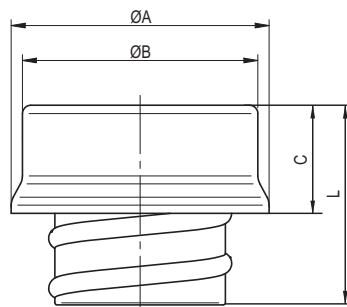
- increases the hermetic level of the connection connector-metal conduit up to IP66/IP67 when applied with vacuum metal conduits;
- used only with the metal conduits of series 6071 and 6071T.

**Characteristics:**

- material – self-extinguishing thermoplastic;
- operating temperature – from -25 to +70 °C;
- type of combustion – V0 according to UL94;
- complies with the directive RoHS;
- protection level – IP66/IP67.

Nominal diameter of the metal conduit*, mm	Dimensions, mm		Packing, pcs.	Code
	D	L		
10	15,5	20,0	12	66BTP10
12	17,6	20,0	12	66BTP12
15	21,0	20,0	6	66BTP16
20	27,5	30,0	4	66BTP22
26	33,5	30,0	4	66BTP32
35	43,0	30,0	4	66BTP38
40	49,0	40,5	4	66BTP40
50	60,0	40,5	2	66BTP50

### End bushing for a metal flexible conduit



**Purpose:**

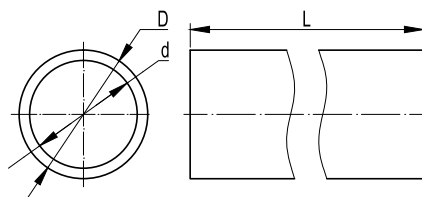
- protects the cable from damage and the installation engineers' hands from sharp edges of the metal conduits.

**Characteristics:**

- material – galvanized steel;
- screwed into the end of the metal conduit.

Nominal diameter of the metal conduit*, mm	Dimensions, mm				Packing, pcs.	Code
	A	B	C	L		
10	18,4	16,8	8,5	15,9	10	S66V10
12	21,0	19,0	8,6	19,3	10	S66V12
15	25,0	23,0	10,8	20,6	10	S66V16
20	31,0	28,3	13,0	24,0	10	S66V22
26	38,2	35,5	13,5	27,2	5	S66V32
35	47,2	43,7	18,8	29,5	5	S66V38
40	53,4	49,7	19,7	33,0	5	S66V40
50	66,7	64,0	26,0	33,5	5	S66V50

## Rigid steel conduit



### Purpose:

- cable and wiring protection against mechanical damage, laying of electrical, phone, computer, TV networks, consisting of insulated wires, cords or cables.

### Characteristics:

- version 1 – steel, galvanized by Sendzimir method;
- version 2 – stainless steel AISI 304;
- version 3 – stainless steel AISI 316L.

### Installation conditions:

- open installation in the materials of all the combustibility groups (NG-G4 according to GOST 30244) and flammability groups V1-V3 according to GOST 30402);
- concealed installation into the hollow cavities of the trunking walls, hollow floors, false ceilings in the materials of NG-G3 combustibility group according to GOST 30244.

### Distinctive features:

- the galvanized steel conduits have a uniform inner seam with no sharp edges, in order to minimize the possibility of damage to the cable coating when pulling it in;
- in the stainless steel conduits the welding seam is protected during the production process, thus the inner surface of the pipe becomes perfectly smooth and it eliminates the possibility of cable damage and makes installation process easier;
- protection against mechanical damage and aggressive environment influence.

## Characteristics

Standard	produced in compliance with CEI EN 61386-1, EN 61386-23, EN 60423
Classification code according to EN 61386-1 and EN 61386-23	5545
Materials and types of coating	steel hot-dip galvanized by Sendzimir method
	AISI 304 stainless steel
	AISI 316L stainless steel
Climatic category according to GOST 15150-69	version 1 – medium 2, cold 2, medium cold 2
	version 2 and 3 – medium 1, cold 1, medium cold 1, medium cold 5
Protection level	IP66/IP67 according to GOST 14254-96 (IEC 529-89)
	IP66 under dynamic impact at installation
	IP67 at static installation
Installing and operating temperature	from -60 to +150 °C
Compression resistance (resistance to compression at 20 °C)	more than 4000 n on 5 cm*
Tensile strength	not less than 1000 n
Impact resistance at -25 °C	not less than 20 J
EMC-shielding	30-230 MHz level 2, (min. attenuation 50 dB) according to IEC 61587

\* Deformation at the stated force of compression is not more than 25 % ± 5 % from the initial diameter

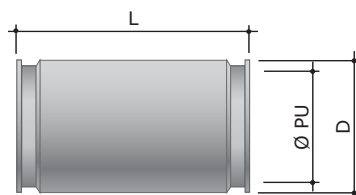
Outer diameter, mm	Inner diameter, mm	Wall thickness, mm	Version 1 ( Sendzimir)		Version 2 (AISI 304)		Version 3 (AISI 316L)	
			Conduits 3 m length		Conduits 4 m length		Conduits 3 m length	
			Packing, m	Code	Packing, m	Code	Packing, m	Code
16	14	1	45	6008-16L3	40	6700-16L4	45	6700A-16L3
20	18	1	45	6008-20L3	40	6700-20L4	45	6700A-20L3
25	22,6	1,2	30	6008-25L3	40	6700-25L4	30	6700A-25L3
32	29,6	1,2	24	6008-32L3	20	6700-32L4	24	6700A-32L3
40	37,6	1,2	15	6008-40L3	20	6700-40L4	15	6700A-40L3
50	47,6	1,2	15	6008-50L3	16	6700-50L4	15	6700A-50L3
63	60	1,5	9	6008-63L3	-	-	-	-

## Accessories for rigid steel conduits

The accessories for steel rigid conduits have a number of advantages, the main of which without any doubt is a patented technology of quick fixation with high level of moisture and dust protection. Due to the system of quick fixation the time of mounting is significantly reduced, and the installing process becomes easier. No need for making thread, no welding, no special instruments together with the ease of installation make the process of steel pipes mounting incredibly easy and convenient.

The accessories are produced from nickel-plated brass and AISI 316L stainless steel, and they are an optimal solution for manufacturing companies in heavy industrial conditions.

### Connector conduit-conduit



#### Purpose:

- a hermetic connection of steel rigid conduits of equal diameters.

#### Characteristics:

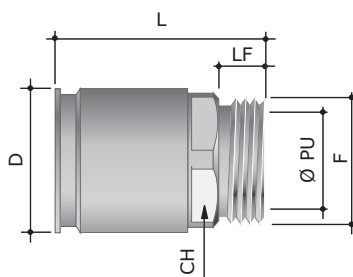
- version 1 – nickel-plated brass;
- version 3 – AISI 316L stainless steel;
- protection level IP66/IP67.

#### Distinctive features:

- self-clamping mechanism, ensuring the IP66/IP67 protection level.

Diameter, mm	Dimensions, mm			Packing, pcs.	Code, version 1 (nickel-plated brass)	Code, version 3 (AISI 316L)
	Ø PU	L	D			
16	15	58	23	8	6110-16N	6110-16XX
20	19	58	27	8	6110-20N	6110-20XX
25	24	58	32	5	6110-25N	6110-25XX
32	31	63	39	4	6110-32N	6110-32XX
40	38	80	50	5	6110-40	6110-40XX
50	48	80	60	5	6110-50	6110-50XX
63	61	84	75	1	6110-63N	–

### Connector conduit-box IP66/IP67



#### Purpose:

- a hermetic connection of steel rigid conduits with the bases of junction boxes and panels.

#### Characteristics:

- version 1 – nickel-plated brass;
- version 3 – AISI 316L stainless steel;
- protection level IP66/IP67.

#### Distinctive features:

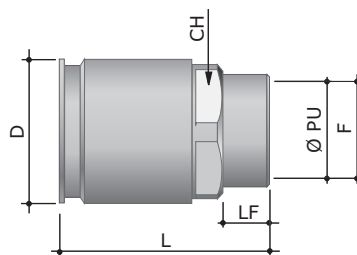
- self-clamping mechanism, ensuring the IP66/IP67 protection level;
- metric thread.

#### Set:

- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Diameter, mm	Dimensions, mm						Packing, pcs.	Code, version 1 (nickel-plated brass)	Code, version 3 (AISI 316L)
	F	Ø PU	CH	LF	D	L			
16	M16x1,5	12,7	20	10	26	41	8	6111-A16N	6111-16XX
20	M20x1,5	16,0	24	10	27	41	8	6111-A20N	6111-20XX
25	M25x1,5	21,0	29	10	32	41	5	6111-A25N	6111-25XX
32	M32x1,5	27,5	37	12	39	46	4	6111-A32N	6111-32XX
40	M40x1,5	35,0	46	14	50	57	5	6111-A40	6111-40XX
50	M50x1,5	45,0	55	14	60	57	5	6111-A50	6111-50XX
63	M63x1,5	55,0	75	14	75	68	1	6111-A63N	–

## Connector conduit-box with internal thread IP66/IP67



### Purpose:

- a hermetic connection of steel rigid conduits with the bases of junction boxes, enclosures and panels.

### Characteristics:

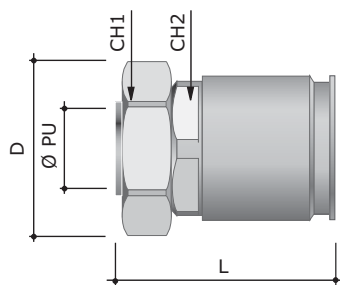
- version 1 – nickel-plated brass;
- version 3 – AISI 316L stainless steel;
- protection level IP66/IP67.

### Distinctive features:

- self-clamping mechanism, ensuring the IP66/IP67 protection level;
- inner metric thread.

Diameter, mm	Dimensions, mm						Packing, pcs.	Code, version 1 (nickel-plated brass)	Code, version 3 (AISI 316L)
	F	Ø PU	CH	LF	D	L			
16	M16x1,5	14,5	20	10	26	39	8	6112-A16	6112-16XX
20	M20x1,5	18,5	24	10	27	39	8	6112-A20	6112-20XX
25	M25x1,5	23,5	29	10	32	39	5	6112-A25	6112-25XX
32	M32x1,5	30,5	37	12	39	44	4	6112-A32	6112-32XX
40	M40x1,5	38,5	46	15	50	58	5	6112-A40	6112-40XX
50	M50x1,5	48,5	55	15	60	58	5	6112-A50	6112-50XX
63	M63x1,5	60,0	75	21,5	75	67	1	6112-A63N	–

## Connector rigid smooth conduit-metal flexible conduit IP66/IP67



### Purpose:

- a hermetic connection of rigid steel conduits with metal flexible conduits.

### Characteristics:

- version 1 – nickel-plated brass;
- version 3 – AISI 316L stainless steel;;
- protection level IP66/IP67.

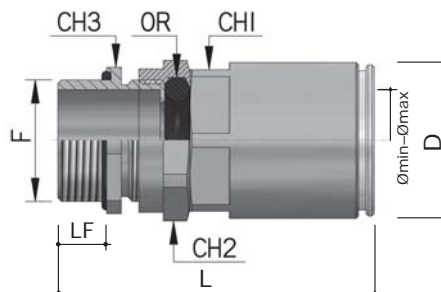
### Distinctive features:

- self-clamping mechanism, ensuring the IP66/IP67 protection level;
- a hermetic connection of the metal rigid conduits and the flexible conduit is made by one connector;
- is used for transition from the rigid conduit to the metal flexible conduit, if a flexible turning of the route is necessary

Diameter of the steel rigid conduit, mm	Nominal diameter of the metal conduit*, mm	Dimensions, mm					Code, version 1 (nickel-plated brass)		Code, version 3 (AISI 316L)	
		Ø PU	CH1	CH2	D	L	packing, pcs.	code	packing, pcs.	code
16	10	8,5	24	24	27	47,5	10	6117-10N		
16	12	10,0	24	26	29	48,5	10	6117-12N		
16	15	13,8	28	30	33	48,0	10	6117-16N		
20	15	13,8	28	30	33	47,0	10	6117-20N	25	6117XX20N
20	20	18,0	35	37	40	50,5	10	6117-2020		
25	20	18,0	35	37	40	51,5	10	6117-25N	15	6117XX25N
25	26	23,0	42	45	50	53,5	10	6117-2527		
32	26	24,0	42	45	50	56,0	10	6117-32N	10	6117XX32N
32	35	30,0	50	52	55	58,5	5	6117-3235		
40	40	38,0	58	61	64	63,5	5	6117-40		
40	35	32,0	58	52	55	63,5	5	6117-4035	5	6117XX4035
50	40	38,0	58	61	64	63,0	5	6117-5040	5	6117XX5040
50	50	48,0	70	74	78	67,5	5	6117-50		
63	50	48,0	75	74	78	74,0	1	6117-63N		



## Connector conduit-box with a hermetic sealing of the cable IP68



### Purpose:

- a hermetic input of the cable and the conduit into the bases of the equipment, enclosures, panels and junction boxes.

### Characteristics:

- material – nickel-plated brass;
- operating temperature– from –25 to +120 °C;
- protection level – IP68.

### Distinctive features:

- structurally combines a hermetic cable clamp and connector for the rigid conduit;
- a hermetic input of the base excluding the possibility of dust and moisture getting inside the base by the cable route;
- a sealing ring securely compresses a round single cable at the input into the box, enclosure.

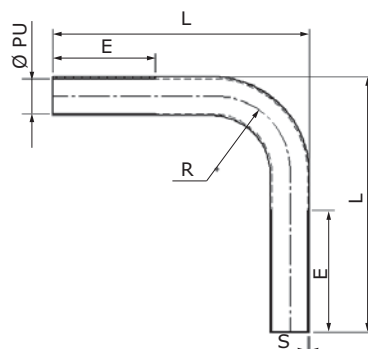
### Set:

- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Diameter of the steel rigid conduit, mm	Cable diameter*,mm	Dimensions, mm							Packing, pcs.	Code
		F	CH1	CH2	CH3	D	LF	L		
16	05 ÷ 09	M12x1,5	20	20	20	23	10	64,3	10	6111P16M120509
16	05 ÷ 09	M16x1,5	20	20	20	23	10	64,3	10	6111P16M160509
16	08 ÷ 12	M20x1,5	20	24	24	23	10	64,3	10	6111P16M200812
20	08 ÷ 12	M16x1,5	24	24	24	27	10	64,3	10	6111P20M160812
20	08 ÷ 12	M20x1,5	24	24	24	27	10	64,3	10	6111P20M200812
20	11 ÷ 16	M25x1,5	24	30	30	27	10	66,2	10	6111P20M251116
25	11 ÷ 16	M20x1,5	29	30	30	32	10	65,9	10	6111P25M201116
25	11 ÷ 16	M25x1,5	29	30	20	32	10	66,2	10	6111P25M251116
25	15 ÷ 21	M32x1,5	29	36	36	32	10	68,2	10	6111P25M321521
32	15 ÷ 21	M25x1,5	37	36	36	39	10	72,5	10	6111P32M251521
32	15 ÷ 21	M32x1,5	37	36	36	39	10	72,5	10	6111P32M321521
32	20 ÷ 27	M40x1,5	37	45	45	39	10	79,0	10	6111P32M402027
40	20 ÷ 27	M32x1,5	46	45	45	50	10	93,0	5	6111P40M322027
40	20 ÷ 27	M40x1,5	46	45	45	50	10	93,0	5	6111P40M402027

\* Designed to seal a cable of the appropriate outer diameter (for example: the muff 6111P16M120509 securely seals the cable with the outer diameter of 5–9 mm)

## 90° elbow conduit-conduit, IP67



### Purpose:

- a hermetic connection of rigid steel conduits at an angle of 90°;
- connection to the conduit is made with the help of connector conduit-conduit.

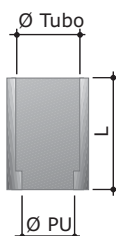
### Characteristics:

- version 1 – steel, galvanized by Sendzimir method;
- version 2 – stainless steel AISI 304;
- version 3 – AISI 316L stainless steel;
- protection level – IP67.

Version 1 ( Sendzimir )							
Diameter of the steel rigid conduit, mm	Dimensions, mm					Packing, pcs.	Code
	S	Ø PU	E	R	L		
16	1,0	14,0	100	40,0	155	5	6013-16L
20	1,0	18,0	100	50,0	160	5	6013-20L
25	1,2	22,5	100	62,5	180	5	6013-25L
32	1,2	29,5	100	80,0	210	5	6013-32L
40	1,2	37,5	100	100,0	220	5	6013-40
50	1,2	47,5	150	125,0	300	1	6013-50
63	1,5	60,0	170	230,0	450	1	6013-63

Diameter of the steel rigid conduit, mm	Dimensions, mm					Packing, pcs.	Code, version 2 (AISI 304)	Code, version 3 (AISI 316L)
	S	Ø PU	E	R	L			
16	1,0	14,0	100	46,0	154	5	6013-16X	–
20	1,0	18,0	100	67,0	177	5	6013-20X	6013-20XX
25	1,2	22,5	100	82,0	195	5	6013-25X	6013-25XX
32	1,2	29,5	100	112,0	228	5	6013-32X	6013-32XX
40	1,2	37,5	100	190,0	310	1	6013-40X	6013-40XX
50	1,2	47,5	175	250,0	450	1	6013-50X	6013-50XX

## End bushing, external



### Purpose:

- protects the cable insulation from damage by the sharp edges of the steel conduits when pulling the cable in, or when cutting the conduits, or when pulling the cable out.

### Characteristics:

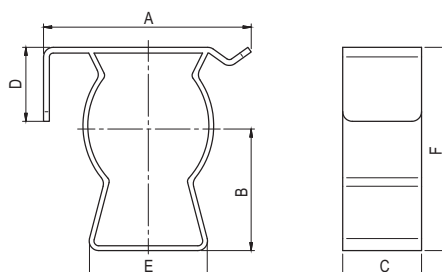
- material – polyethylene;
- operating temperature – from –40 to +60 °C;
- halogen free.

Diameter of the steel rigid conduit, mm	Ø PU, mm	L, mm	Packing, pcs.	Code
16	14,0	20,0	10	6097L16B
20	18,0	22,5	10	6097L20B
25	22,5	26,5	10	6097L25B
32	29,5	33,0	10	6097L32B
40	37,5	38,9	10	6097L40B
50	47,5	47,5	10	6097L50B
63	60,0	59,3	10	6097L63B

## Accessories for flexible and rigid steel conduits

### Holders

#### Holder with the quick fixation cover



#### Purpose:

- fixation of rigid smooth steel conduits to the walls, ceilings, floors or partition surfaces.

#### Characteristics:

- version 1 – steel with zinc coating, applied by zinc plating by galvanic method;
- version 2 – stainless steel AISI 304;
- a hole of 6x10 mm in the lower base of the holder.

#### Distinctive features:

- a patented system of quick fixation significantly saves time and effort;
- a reliable mounting of the conduit without screws and additional tools;
- the shaped profile of the holder ensures a reliable fixation of the conduit and a high load on the tearing the pipe out at suspension;
- edges without burrs do not damage the surface of the conduit when mounting.

#### Set:

- hardware for wall mounting to be ordered separately.

#### Installation scheme



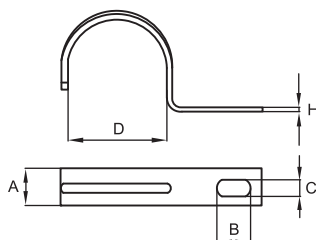
Mounting of the holder  
base to the wall

Installation of the  
conduit in to the base

Clamping of the holder  
cover on the base

Diameter of the steel rigid conduit, mm	Dimensions, mm							Packing, pcs.	Code, version 1 (galvanized steel)	Code, version 2 (AISI 304)
	A	B	C	D	E	F	hole in the base, mm			
16	35,4	22,0	16,0	9,7	20,0	31,6	6x10	100	6044-A16	–
20	36,0	22,0	16,0	9,7	20,0	33,3	6x10	100	6044-A20	6044-XA20
25	43,2	24,5	16,0	15,4	26,0	42,3	6x10	50	6044-A25	6044-XA25
32	55,3	30,0	16,0	14,6	27,0	44,3	6x10	50	6044-A32	6044-XA32
40	61,6	41,0	18,0	14,4	36,0	58,3	6x10	25	6044-A40	–
50	63,8	46,4	18,0	19,6	40,0	69,1	6x10	25	6044-A50	–

## One-sided galvanized holder



### Purpose:

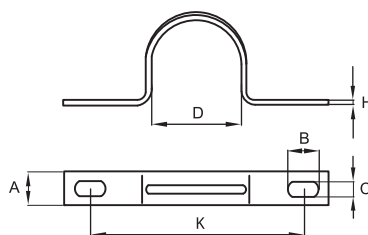
- fixation of the plastic, metal, metal-plastic conduits and also the cables to the walls, ceilings, floors or partition surfaces.

### Characteristics:

- material – galvanized steel.

Diameter, mm	Dimensions, mm					Wholesale packing		Retail packing	
	D	A	B	C	H	quantity, pcs.	code	quantity, pcs. (pack. x pcs.)	code
13	13	10	6	4,5	0,9	100	53340	–	–
16	16	12	6	4,5	0,9	100	53341	400 (20x20)	53341R
19–20	19	12	6	4,5	0,9	100	53342	300 (20x15)	53342R
22	22	14	7	4,5	0,9	100	53343	200 (20x10)	53343R
25–26	26	14	7	4,5	0,9	100	53344	160 (20x8)	53344R
32	32	15	12,5	6,5	1,8	100	53346	120 (20x6)	53346R
38–40	38	15	12,5	6,5	1,8	100	53347	–	–
48–50	48	15	12,5	6,5	1,8	50	53348	–	–

## Double-sided galvanized holder



### Purpose:

- fixation of the plastic, metal, metal-plastic conduits and also the cables to the walls, ceilings, floors or partition surfaces.

### Characteristics:

- material – galvanized steel.

Diameter, mm	Dimensions, mm						Wholesale packing		Retail packing	
	D	A	B	C	H	K	quantity, pcs.	Code	quantity, pcs. (pack. x pcs.)	Code
13	13	10	5	5	0,9	32	100	53353	–	–
16	16	12	6,5	5	0,9	34	100	53354	400 (20x20)	53354R
19–20	19	12	6,5	5	0,9	38	100	53355	300 (20x15)	53355R
22	22	14	8,5	6,5	0,9	47	100	53356	200 (20x10)	53356R
25–26	26	14	8,5	6,5	0,9	47	100	53357	160 (20x8)	53357R
32	32	14	10	6,5	0,9	54	100	53359	120 (20x6)	53359R
38–40	38	14	10	6,5	0,9	61	100	53360	–	–
48–50	50	14	10	6,5	0,9	80	50	53361	–	–
63	63	14	8,5	6,5	1	88	30	53362	–	–

## Plastic dowels with self-tapping screws



Dowel type V



Dowel type F

### Purpose:

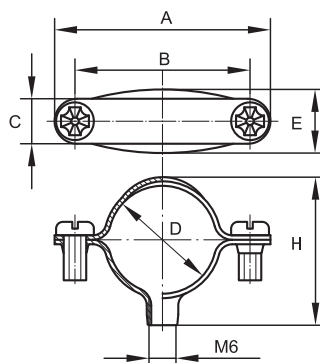
- general-purpose fixing accessories.

### Characteristics:

- a dowel material – plastic;
- a self-tapping screw material: galvanized steel.

Dowel type	Dimensions, mm				Installation				Packing, pcs.	Old code	New code
	dowel diameter	dowel length	selftapping screw diameter	selftapping screw length	concrete	brick	hollow brick	drywall, separators			
V5	5	25	4	30	+	+	–	–	100	06521	CM06521
V6	6	30	4,5	40	+	+	–	–	100	06522	CM06522
V8	8	40	5	45	+	+	–	–	100	06523	CM06523
F6	6	45	3,5	50	+	+	+	+	100	06541	CM06541
F8	8	50	4,5	60	+	+	+	+	100	06542	CM06542

## Steel clamp with inner thread M6



### Purpose:

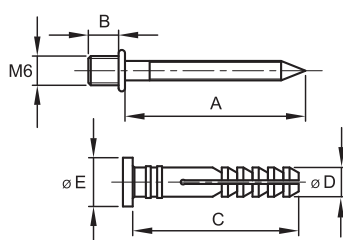
- mounting of plastic and metal pipes to the walls, ceilings, floors or partition surfaces.

### Characteristics:

- material – galvanized steel;
- in the clamp there's a through hole with inner thread M6 for mounting of the holder to the fixing set, code 63768 or a threaded rod with the thread M6.

Diameter, mm	Dimensions, mm						Packing, pcs.	Code
	D	A	B	C	E	H		
12	12	39	25	10	16	20	100	58012
14	14	37	25	10	16	20	100	58014
16	16	42	31	10	16	24	100	58016
20	20	46	34	10	16	27	100	58020
25-26	26	49	41	10	16	34	100	58026
32	32	55	46	10	16	40	100	58032
38-40	40	66	55	12	16	45	100	58038
48-50	50	76	67	12	16	57	50	58048

## A fixing set for steel clamps



### Purpose:

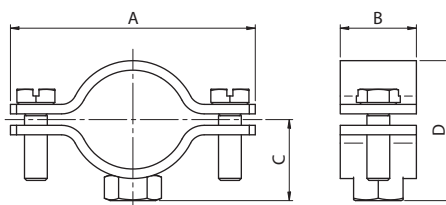
- fixing of steel clamps and holders with clips to the surface of concrete and brick walls, ceilings, floors and separators.

### Characteristics:

- a dowel material – nylon;
- a dowel-nail material – galvanized steel;
- a dowel size – D6x35 mm;
- the thread M6x5 mm on the head of the dowel-nail.

Size, mm	Dimensions, mm					Packing, pcs.	Code
	A	B	C	ØD	ØE		
D6x35	37	6	34	6	10	100	63768

## Steel clamp with the weld nut



### Purpose:

- mounting of plastic and metal pipes to the walls, ceilings, floors or partition surfaces.

### Characteristics:

- material – galvanized steel;
- a weld nut with the metric thread.

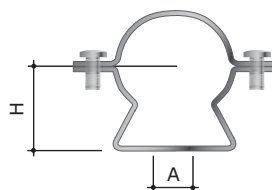
### Distinctive features:

- the processed edges help to prevent damage of the pipes, do not leave scratches on the surface.

Dimensions, mm								Packing, pcs.	Code
Ø of the fixation	Ø of the pipe, "	thread	A	B	C	D	steel thickness		
18-24	1/2	M8	59,0	20	20	34,5	2,5	100	6040-P12
25-30	3/4	M8	61,9	20	23	39,7	2,5	100	6040-P34
30-36	1	M8	70,5	20	27	46,3	2,5	100	6040-P01
38-44	1 1/4	M8	87,6	20	30	56,0	2,5	100	6040-P114
44-50	1 1/2	M8	87,6	20	35	61,0	2,5	100	6040-P112
56-63	2	M8	99,7	20	42	76,2	2,5	100	6040-P02
75-80	2 1/2	M10	123,6	20	50	87,6	2,5	100	6040-P212
84-90	3	M10	134,5	20	57	100,8	2,5	100	6040-P03
112-118	4	M10	168,0	30	70	124,0	2,5	100	6040-P04



## Steel clamp for conduit



### Purpose:

- mounting of plastic and metal conduits to the walls, ceilings, floors or partition surfaces.

### Characteristics:

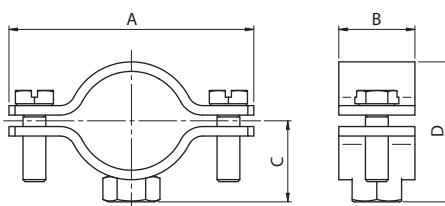
- material – galvanized steel.

### Distinctive features:

- easy system of the pipes fixation with a flap lid.

Steel conduit diameter, mm	Fixed diameter, mm	H, mm	A, mm	Packing, pcs.	Code
16–3/8"	16,0–19,5	20	6x10	125	6040-16
20–1/2"	20,0–23,5	22	6x10	100	6040-22
25–3/4"	23,5–26,0	25	6x10	75	6040-25
32–1"	26,5–33,0	32	6x12	60	6040-32
40–1 1/4"	35,0–40,0	41	6x12	40	6040-38
50–1 1/2"	43,0–50,0	45	8x14	30	6040-50
63–2"	54,0–63,0	53	8x14	20	6040-60

## Stainless steel clamp for heavy loads



### Purpose:

- mounting of plastic, steel and other types of conduits to the walls, ceilings, floors and partition surfaces; suspension on the threaded rod and to the consoles.

### Installation conditions:

- indoors, outdoors.

### Characteristics:

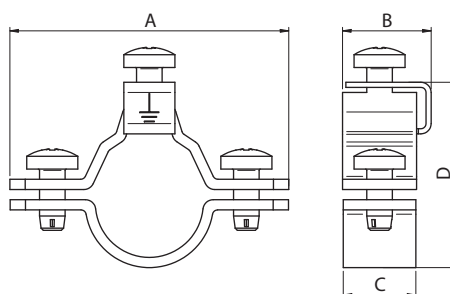
- version 2 – stainless steel AISI 304;
- version 3 – AISI 316L stainless steel;
- the conduit diameter from 15 mm (3/8") to 115 mm (4").

### Distinctive features:

- the processed edges help to prevent damage of the conduits, do not leave scratches on the surface;
- good load indicators and high chemical resistance of the material in tough operating conditions.

Fixed diameter, mm	Diameter of the steel pipe	Female screw, mm	Dimensions, mm					Workload, F*Hm	Packing, pcs.	Code, version 2 (AISI 304)	Code, version 3 (AISI 316L)
			A	B	C	D	steel thickness S, mm				
15–19	3/8	M8	59,7	20	18	31,5	2	80	100	6040-038	–
20–24	1/2	M8	58,2	20	20	33,6	2	80	100	6040-012	6040-012X
25–29	3/4	M8	66,5	20	22	42,5	2	80	100	6040-034	6040-034X
32–36	1	M8	75,3	20	26	48,4	2	80	100	6040-001	6040-001X
40–45	1 1/4	M8	89,0	20	30	56,4	2,5	90	100	6040-114	6040-114X
47–51	1 1/2	M8	87,4	20	35	59,4	2,5	90	100	6040-112	6040-112X
59–63	2	M8	100,2	20	42	74,2	2,5	90	100	6040-002	–
73–78	2 1/2	M10	131,2	30	50	89,0	2,5	130	100	6040-212	–
86–92	3	M10	150,5	30	57	100,2	2,5	130	100	6040-003	–
108–115	4	M10	169,0	30	70	120,5	2,5	130	100	6040-004	–

## Earthing clamp for conduit



### Purpose:

- grounding, neutral wire earthing and equipotential bonding of the steel pipes.

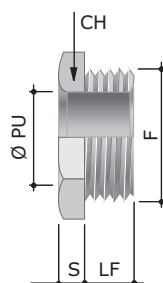
### Characteristics:

- version 1 – steel with a zinc coating applied by electroplating galvanizing;
- it's possible to connect conductors with the section up to 16 mm<sup>2</sup>;
- the conduits diameter from 16 mm (3/8") to 63 mm (2").

Steel conduit diameter, mm	Dimensions, mm				Packing, pcs.	Code, version 1
	A	B	C	D		
16-3/8"	47,0	17,1	13,2	29,8	20	6042-16
20-1/2"	53,7	17,1	14,2	33,4	20	6042-20
25-3/4"	57,8	17,5	14,2	38,5	20	6042-25
32-1"	70,5	17,7	14,8	46,6	20	6042-32
40-1 1/4"	81,7	19,5	17,1	52,4	20	6042-40
50-1 1/2"	87,1	18,3	17,1	62,7	20	6042-50
63-2"	97,9	19,2	17,1	74,0	20	6042-63

## Accessories

### Protection sleeve



### Purpose:

- branching and withdrawal of the cables from boxes and metal trays in order to protect the cable coating from cutting with a sharp edge.

### Characteristics:

- material – nickel-plated brass;
- protection level – IP67;
- metric thread.

### Distinctive features:

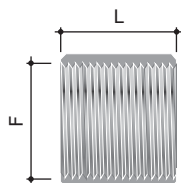
- high resistance to tough environmental conditions;
- a smooth inner surface with radial roundings;
- fixed by a threaded joint or a female screw.

### Set:

- the position is additionally equipped with a female screw, if necessary.

Dimensions, mm					Packing, pcs.	Code
F	Ø PU	CH	LF	S		
M16x1,5	13,0	22	10	3,0	5	6052-16A
M20x1,5	15,0	26	10	3,0	5	6052-20
M25x1,5	21,0	30	12	3,5	5	6052-25
M32x1,5	28,0	40	12	4,0	5	6052-32A
M40x1,5	35,0	50	14	4,0	1	6052-40
M50x1,5	44,0	58	18	5,0	1	6052-50

## Connection coupling



### Purpose:

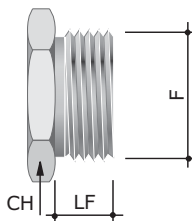
- connection of two connectors with a metric thread of one typical size.

### Characteristics:

- material – nickel-plated brass;
- protection level – IP67;
- metric thread.

Dimensions, mm		Packing, pcs.	Code
F	L		
M16x1,5	20,0	10	6003-16A
M20x1,5	22,0	10	6003-20
M25x1,5	28,0	10	6003-25
M32x1,5	28,0	10	6003-32A
M40x1,5	30,0	5	6003-40
M50x1,5	50,0	5	6003-50
M63x1,5	65,0	2	6003-63

## Nickel-plated brass plug



### Purpose:

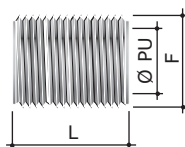
- closing of unused metric threaded holes.

### Characteristics:

- material – nickel-plated brass;
- metric thread.

Dimensions, mm			Packing, pcs.	Code
F	CH	LF		
M16x1,5	22	8	20	6050-16A
M20x1,5	24	8	20	6050-20
M25x1,5	28	10	20	6050-25
M32x1,5	35	10	20	6050-32A
M40x1,5	45	12	20	6050-40
M50x1,5	55	13	10	6050-50

## Nipple



### Purpose:

- connection of various elements with appropriate metric threaded holes.

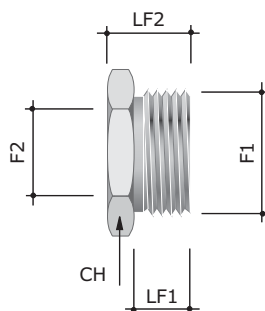
### Characteristics:

- material – nickel-plated brass;
- external metric thread.

Dimensions, mm			Packing, pcs.	Code
F	Ø PU	L		
M16x1,5	12	21,0	20	6051-16A
M20x1,5	15	24,5	20	6051-20
M25x1,5	20	25,0	20	6051-25
M32x1,5	26	32,0	20	6051-32A
M40x1,5	36	30,0	25	6051-40
M50x1,5	41	50,0	5	6051-50
M63x1,5	58	50,5	1	6051-63

## Reducers with a metric thread MET-MET

### Type A



#### Purpose:

- switching to different sizes of metal thread.

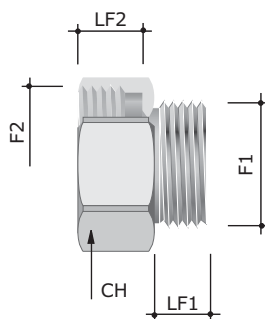
#### Characteristics:

- material – nickel-plated brass;
- switching to the necessary size of metric thread;
- metric thread – ISO Metric EN 60423.

#### Distinctive features:

- high chemical resistance of the material in tough operating conditions.

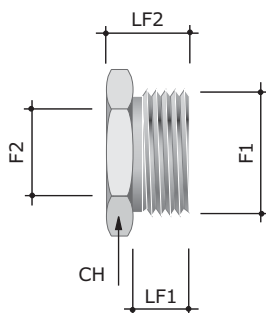
### Type B



Dimensions, mm					Type	Packing, pcs.	Code
F1	F2	CH	LF2	LF1			
M16x1,5	M20x1,5	22	11	8	B	20	6016-1620
M20x1,5	M16x1,5	24	12	8	A	20	6016-2016
M20x1,5	M25x1,5	28	11	8	B	10	6016-2025
M25x1,5	M20x1,5	26	14	10	A	20	6016-2520
M25x1,5	M32x1,5	35	13	10	B	10	6016-2532
M32x1,5	M20x1,5	35	14	10	A	10	6016-3220
M32x1,5	M25x1,5	35	15	10	A	10	6016-3225
M32x1,5	M40x1,5	42	13	10	B	10	6016-3240
M40x1,5	M20x1,5	45	15	10	A	10	6016-4020
M40x1,5	M25x1,5	45	15	10	A	10	6016-4025
M40x1,5	M32x1,5	42	18	13	A	10	6016-4032
M40x1,5	M50x1,5	55	14	12	B	5	6016-4050
M50x1,5	M32x1,5	50	18	13	A	5	6016-5032
M50x1,5	M40x1,5	50	19	13	A	5	6016-5040
M50x1,5	M63x1,5	70	15	13	B	2	6016-5063
M63x1,5	M40x1,5	65	21	14	A	2	6016-6340
M63x1,5	M50x1,5	65	21	14	A	2	6016-6350

## Reducer from the gas thread to the metric thread GAS-MET

### Type A



#### Purpose:

- switching from the gas thread to the metric one.

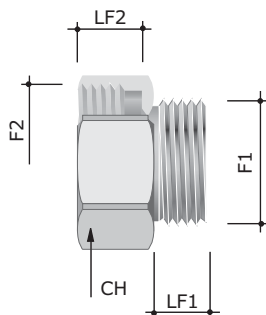
#### Characteristics:

- material – nickel-plated brass;
- metric thread – ISO Metric EN 60423;
- gas pipe thread – ISO 228 GAS DIN 40430 – analogue GOST 6357-81;
- 2 different types of adapters.

#### Distinctive features:

- high chemical resistance of the material in tough operating conditions;
- a perfect solution when it's necessary to connect to the equipment with the holes with a metric thread.

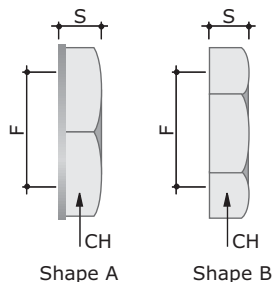
### Type B



Dimensions, mm					Type	Packing, pcs.	Code
F1	F2	CH	LF2	LF1			
1/2"	M16x1,5	22	11,0	9,0	A	50	6019-1216
3/4"	M20x1,5	28	13,5	9,5	A	20	6019-3420
1"	M25x1,5	35	15,5	10,5	A	10	6019-0125
1"	M20x1,5	35	15,5	10,5	A	10	6019-0120
1"	M32x1,5	35	13,0	13,0	B	10	6019-0132
1"1/4	M32x1,5	46	19,0	11,0	A	10	6019-11432
1"1/2	M40x1,5	50	23,0	17,0	A	10	6019-11240
2"	M50x1,5	60	26,5	20,0	A	10	6019-0250
2"	M63x1,5	70	20,0	18,0	B	10	6019-0263
2"1/2	M63x1,5	75	31,0	19,0	A	1	6019-21263



## Nut



### Purpose:

- fixation connectors for flexible and rigid conduits to the equipment bases, enclosures, panels, junction boxes.

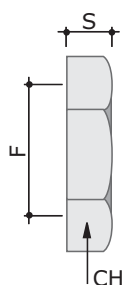
### Characteristics:

- version 1 – nickel-plated brass;
- version 3 – AISI 316L stainless steel.

Dimensions, mm			Type	Packing, pcs.	Code, version 1 (nickel-plated brass)
F1	CH	S			
M12x1,5	15	3	B	10	6006E-12
M16x1,5	18	6	A	10	6006-16A
M20x1,5	22	6	A	10	6006-20
M25x1,5	29	6	A	10	6006-25
M32x1,5	38	8	A	10	6006-32A
M40x1,5	45	7	A	5	6006-40
M50x1,5	54	8	A	5	6006-50
M63x1,5	66	10	A	5	6006-63

Dimensions, mm			Type	Packing, pcs.	Code, version 3 (AISI 316L)
F1	CH	S			
M16x1,5	20	3	B	10	6006-16XX
M20x1,5	24	4	B	10	6006-20XX
M25x1,5	30	4	B	10	6006-25XX
M32x1,5	36	4	B	10	6006-32XX
M40x1,5	45	5	B	5	6006-40XX
M50x1,5	55	6	B	5	6006-50XX

## Grounding nut



### Purpose:

- making of reliable electrical contact between the accessories and grounded electrical equipment bases or junction boxes.

### Characteristics:

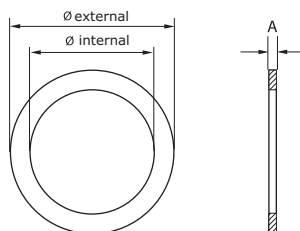
- nickel-plated brass.

### Distinctive features:

- no need to clean the painted surface;
- a reliable contact when connecting to the existing equipment;
- sharp edges cut off the paint, embedding into the metal, and ensure a reliable contact.

Dimensions, mm			Packing, pcs.	Code
F	CH	S		
M12x1,5	15	3,0	10	6006EMC-12A
M16x1,5	20	3,0	10	6006EMC-16A
M20x1,5	24	3,5	10	6006EMC-20
M25x1,5	30	3,5	10	6006EMC-25
M32x1,5	35	4,5	10	6006EMC-32A
M40x1,5	45	4,5	5	6006EMC-40
M50x1,5	55	5,5	5	6006EMC-50
M63x1,5	70	6,0	5	6006EMC-63

## Sealing gasket IP67



### Purpose:

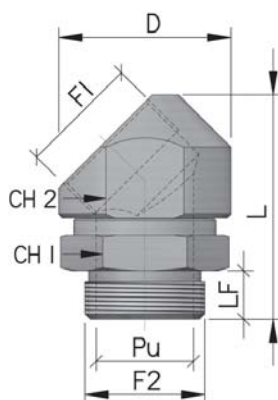
- sealing of the input places of the muffs into the equipment bases, enclosures, panels, junction boxes, ensure the IP67 protection level.

### Characteristics:

- operating temperature – from –45 to +150 °C (in short moment up to 180 °C).

For thread	Dimensions, mm			Packing, pcs.	Code
	Ø inner	Ø outer	A		
M16x1,5	16,0	22,0	1,5	20	6060-1522
M20x1,5	20,0	26,0	1,5	20	6060-1925
M25x1,5	25,0	32,0	1,5	10	6060-2532
M32x1,5	32,0	38,5	1,5	10	6060-3238
M40x1,5	40,0	50,0	1,5	5	6060-4050
M50x1,5	50,0	59,5	1,5	2	6060-5060
M63x1,5	63,0	72,0	2,0	2	6060-6472

## Rotating adapter 45°, IP68



### Purpose:

- the choice of direction of the cable output and minimization of the possible mechanical and temperature effects on the cable when turning.

### Installation conditions:

- indoors and outdoors.

### Characteristics:

- material – nickel-plated brass;
- produced in accordance with the EN 61386-1 and EN 60423;
- protection level – IP68/IP67;
- compatible with all metric threaded connections.

### Distinctive features:

- high precision of the manufacturing ensures no risk of the insulation damage when inserting the cable;
- the rotating body of the adapter with an inner sealing guarantees a high sealing level.

### Set:

- the position is additionally equipped with a nut and a sealing gasket, if necessary.

Dimensions, mm								Packing, pcs.	Code
F1	F2	LF	L	PU	ØD	CH2	CH1		
M20x1,5	M20x1,5	10	48	15,0	34	30	26	10	6028-20G
M25x1,5	M25x1,5	10	52	20,0	38	34	32	10	6028-25G
M32x1,5	M32x1,5	13	60	26,0	46	41	39	10	6028-32G
M40x1,5	M40x1,5	14	70	32,0	55	50	50	10	6028-40G
M50x1,5	M50x1,5	18	85	39,5	65	56	55	10	6028-50G
M63x1,5	M63x1,5	18	97	49,0	80	70	65	10	6028-63G

## Metal junction boxes

Designed for decoration and protection of junction places of the cables of power and lighting electric networks with the voltage up to 1000 V AC and DC, and also information network cables (phone, computer, television, connection networks and so on) from mechanical damage, dust and moisture. The boxes are designed for mounting both indoors and outdoors.

## Application sphere

### Installation indoors

As terminal, transfer, junction boxes when installing indoors in warehouse, basement, utility, industrial and commercial premises.

### Installation outdoors

As terminal, transfer, junction boxes when installing outdoors on the building facades, bridges, fences, overpasses.

### Enclosures for electrical equipment

Installing of active and passive electrical equipment, control and management elements.

## Distinctive features

### Mounting holes

Allow to fix DIN-rail and circuit board inside the box

### Chemical and corrosion resistance

Boxes made of aluminum alloy are not corrodible, preserve the aesthetic appearance

### Stainless steel screws AISI 304

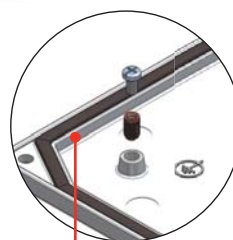
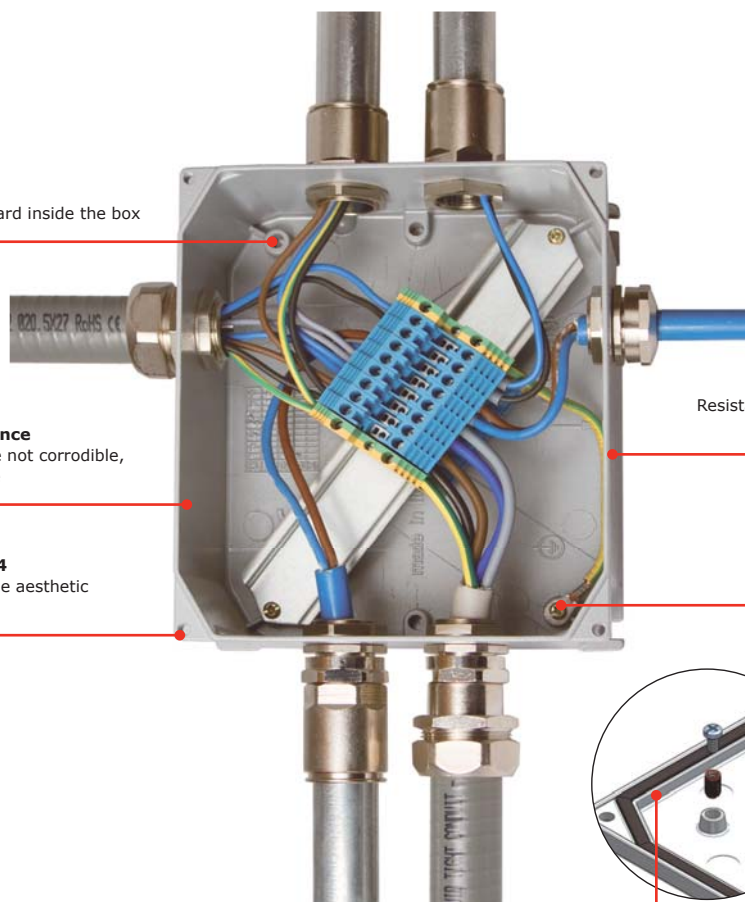
Resistant to corrosion, preserve the aesthetic appearance

### External epoxy box paint

Resistance to mechanical impact, chips and UV-impact

### Earthing contact on the lid and the box

Ease of junction boxes grounding



### Seal of polyurethane foam

- is poured on the bottom of the lid, providing a high level of dust and moisture protection IP66/IP67;
- does not fall during installation, ensuring the stated protection level

## Advantages

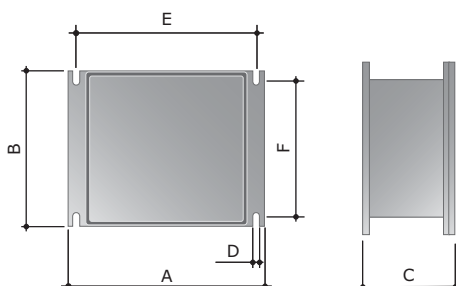
Junction boxes made of aluminum alloy with epoxy painting resistant to mechanical impact, chips and UV-impact. Seal of polyurethane foam, filled on the perimeter of the lid does not fall during mounting and ensures a degree of dust and moisture IP66/IP67. Boxes are qualitatively different from competitive product by speed and easy of installation, reliability and durability, they preserve the aesthetic appearance.

## System components

DKC range comprises several types of aluminum junction boxes:

- junction boxes, aluminum, painted IP67/IP66;
- junction boxes and lingering aluminum with metric threaded bushings IP55.

## Aluminum junction box, painted



### Purpose:

- connection and branching of wire and cable, mounting of active and passive equipment.

### Installation conditions:

- indoor and outdoor.

### Characteristics:

- material – aluminum alloy;
- protection level – IP67/IP66;
- color – grey RAL 9006;
- mounting temperature – from –25 till +70 °C.

### Distinctive features:

- resistance to the environmental impact;
- high degree of dust and moisture protection;
- aesthetic appearance.

### Optional accessories:

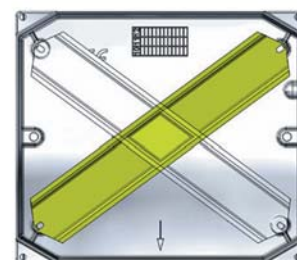
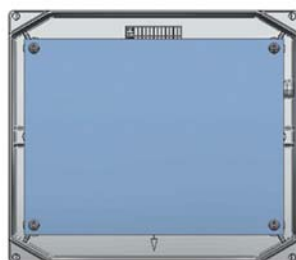
- DIN-rail and mounting plates for boxes.

Dimensions, mm									Packing, pcs.	Code
internal dimensions, mm			overall dimension, mm			connecting dimensions, mm				
A	B	C	A	B	C	D	E	F		
90	90	53	100	100	59	6,0	80	86	32	65300
128	103	55	140	115	60	6,0	120	100	24	65301
154	129	58	166	142	64	7,0	144	125	16	65302
178	155	74	192	168	80	6,5	168	149	12	65303
239	202	85	253	217	93	9,0	226	196	6	65304
294	244	114	314	264	122	9,0	275	236	2	65305
392	298	144	410	315	153	9,0	367	283	1	65306

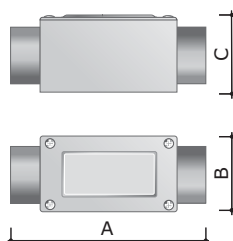
## Number and sizes of onnectors to be installed in the junction box side walls

Code/Thread	65300		65301		65302		65303		65304		65305		65306	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
M16	2	2	3	2	3	3	4	4	5	5	6	6	9	7
M20	2	1	2	2	3	2	3	3	5	4	5	5	8	6
M25	1	1	2	2	2	2	3	3	4	4	4	4	6	5
M32	1	1	1	1	2	1	2	2	3	3	4	3	5	4
M40	/	/	/	/	/	/	2	2	2	2	3	3	4	3
M50	/	/	/	/	/	/	1	1	2	2	2	2	4	3
M63	/	/	/	/	/	/	/	/	2	1	2	2	3	2

## Options for mounting additional accessories:



### Feeder aluminum box, 2 inputs 180°, IP55



**Purpose:**

- connection and broaching of wires and cables when mounting in rigid steel conduits.

**Characteristics:**

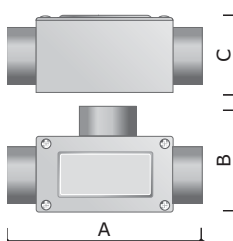
- material – aluminum alloy;
- protection level – IP55;
- installation temperature – from –25 to +70 °C;
- 2 inputs with metric thread.

**Distinctive features:**

- high resistance to corrosion.

Dimensions, mm				Packing, pcs.	Code
A	B	C	F		
118	51	42	M16x1,5	1	6030-16A
118	51	42	M20x1,5	1	6030-20
118	51	42	M25x1,5	1	6030-25
146	45	57	M32x1,5	1	6030-32A
171	62	71	M40x1,5	1	6030-40
171	62	71	M50x1,5	1	6030-50

### Feeder aluminum box, 3 inputs, IP55



**Purpose:**

- branching and broaching of wires and cables when mounting in rigid steel conduits.

**Characteristics:**

- material – aluminum alloy;
- protection level – IP55;
- installation temperature – from –25 to +70 °C;
- 3 inputs with metric thread.

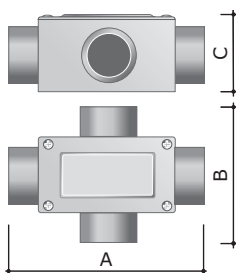
**Distinctive features:**

- high resistance to corrosion.

Dimensions, mm				Packing, pcs.	Code
A	B	C	F		
118	67	42	M16x1,5	1	6330-16A
118	67	42	M20x1,5	1	6330-20
118	67	42	M25x1,5	1	6330-25
146	63	57	M32x1,5	1	6330-32A
171	78	71	M40x1,5	1	6330-40
171	78	71	M50x1,5	1	6330-50



## Feeder aluminum box, 4 inputs, IP55



### Purpose:

- branching and broaching of wires and cables when mounting in rigid steel conduits.

### Characteristics:

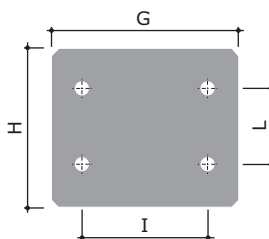
- material – aluminum alloy;
- protection level – IP55;
- Installation temperature – from –25 to +70 °C;
- 4 inputs with metric thread.

### Distinctive features:

- high resistance to corrosion.

Dimensions, mm				Packing, pcs.	Code
A	B	C	F		
118	83	42	M16x1,5	1	6430-16A
118	83	42	M20x1,5	1	6430-20
118	83	42	M25x1,5	1	6430-25
146	81	57	M32x1,5	1	6430-32A
171	96	71	M40x1,5	1	6430-40
171	96	71	M50x1,5	1	6430-50

## Circuit board made of galvanized steel



### Purpose:

- installation of equipment inside the aluminum junction boxes.

### Characteristics:

- material – galvanized steel.

### Distinctive features:

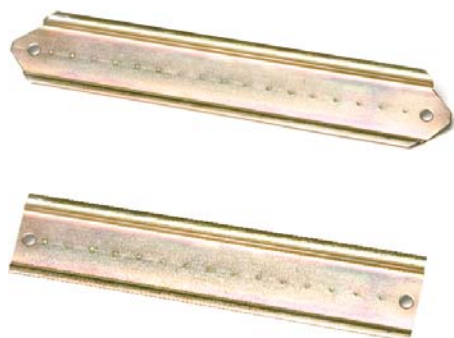
- supplied with ready-made holes.

### Set:

- completed precast plugs and screws for mounting.

Dimensions, mm				Corresponding box code	Packing, pcs.	Code
G	H	I	L			
122	82	107	66	65301	1	653011
133	109	121	98	65302	1	653012
165	124	153	112	65303	1	653013
206	172	188	153	65304	1	653014
254	210	238	198	65305	1	653015
349	260	333	248	65306	1	653016

## DIN-rail for aluminum junction boxes



### Purpose:

- installation of equipment inside the aluminum junction boxes.

### Characteristics:

- material – galvanized steel;
- DIN-rail Omega profile (35x7,5 mm).

### Distinctive features:

- supplied with ready-made holes;
- a choice of horizontal and diagonal rails.

### Set:

- completed precast plugs and screws for mounting.

Corresponding box code	Packing, pcs.	Diagonal DIN-rail code	Horizontal DIN-rail code
65300	1	653020	–
65301	1	653021	653021H
65302	1	653022	653022H
65303	1	653023	653023H
65304	1	653024	653024H
65305	1	653025	653025H
65306	1	653026	653026H

**Selection chart of accessories for metal flexible conduits**


Nominal diameter of the metal conduit*, mm	Galvanized steel metal flexible conduits , IP40	Metal flexible conduits in smooth PVC coating	Metal flexible conduits with vacuum PVC coating	Metal flexible conduits with vacuum PVC coating and protected by galvanised steel braid	Metal flexible conduits in smooth EVA coating	Metal flexible conduits in smooth EVA coating and protected by stainless steel AISI 304 braid
10	667M1013	6070-10	6071-010	6071T-010	607E010	607ETX010
12	667M1215	6070-12	6071-012	6071T-012	607E012	607ETX012
15	667M1518	6070-16	6071-015	6071T-016	607E016	607ETX016
15	667M1518	6070-16	6071-015	6071T-016	607E016	607ETX016
20	667M2024	6070-22	6071-020	6071T-022	607E022	607ETX022
20	667M2024	6070-22	6071-020	6071T-022	607E022	607ETX022
26	667M2630	6070-32	6071-027	6071T-032	607E032	607ETX032
26	667M2630	6070-32	6071-027	6071T-032	607E032	607ETX032
35	667M3539	6070-38	6071-035	6071T-038	607E038	607ETX038
40	667M4044	6070-40	6071-040	6071T-040	607E040	607ETX040
40	667M4044	6070- 40	6071-040	6071T-040	607E040	607ETX040
50	667M5054	6070-50	6071-050	6071T-050	607E050	607ETX050
50	667M5054	6070-50	6071-050	6071T-050	607E050	607ETX050

**Selection chart of accessories for rigid metal conduits**


Steel conduit diameter, mm	Galvanized rigid conduit	Connector conduit-conduit, IP66/IP67	Connector conduit-box, IP66/IP67	Nut	Nominal diameter of the metal conduit*, mm
16	6008-16L3	6110-16N	6111-A16N	6006-16A	12
16	6008-16L3	6110-16N	6111-A16N	6006-16A	15
20	6008-20L3	6110-20N	6111-A20N	6006-20	15
20	6008-20L3	6110-20N	6111-A20N	6006-20	20
25	6008-25L3	6110-25N	6111-A25N	6006-25	20
25	6008-25L3	6110-25N	6111-A25N	6006-25	26
32	6008-32L3	6110-32N	6111-A32N	6006-32A	26
32	6008-32L3	6110-32N	6111-A32N	6006-32A	35
40	6008-40L3	6110-40	6111-A40	6006-40	35
40	6008-40L3	6110-40	6111-A40	6006-40	40
50	6008-50L3	6110-50	6111-A50	6006-50	40
50	6008-50L3	6110-50	6111-A50	6006-50	50
63	6008-63L3	6110-63N	6111-A63N	6006-63	50



Nominal diameter of the metal conduit*, mm	Connector metal flexible conduit-box	Rotating connector metal conduit-box	Nut	Grounding nut	Sealing gasket IP67	Connector metal conduit-box with the internal thread
10	6014-1016	6014-1016G	6006-16A	6006EMC-16A	6060-1522	6015-10A
12	6014-16A	6014-1216G	6006-16A	6006EMC-16A	6060-1522	6015-12A
15	6014-1616		6006-16A	6006EMC-16A	6060-1522	6015-16A
15	6014-20A	6014-20G	6006-20	6006EMC-20	6060-1925	6015-20
20	6014-2020		6006-20	6006EMC-20	6060-1925	6015-2020
20	6014-25A	6014-25G	6006-25	6006EMC-25	6060-2532	6015-25
26	6014-2527		6006-25	6006EMC-25	6060-2532	6015-2527
26	6014-32A	6014-2732G	6006-32A	6006EMC-32A	6060-3238	6015-32A
35	6014-4035	6014-4035G	6006-40	6006EMC-40	6060-4050	6015-4035
40	6014-40A		6006-40	6006EMC-40	6060-4050	6015-40
40	6014-5040	6014-5040G	6006-50	6006EMC-50	6060-5060	6015-5040
50	6014-50A		6006-50	6006EMC-50	6060-5060	6015-50
50	6014-6350	6014-6350G	6006-63	6006EMC-63	6060-6472	6015-6350



Steel conduit diameter, mm	Grounding nut	Sealing gasket IP67	Connector conduit-box with internal thread IP66/IP67	Connector conduit-box with internal thread IP66/IP67	Nominal diameter of the metal conduit*, mm
16	6006EMC-16A	6060-1522	6112-A16	6117-12N	12
16	6006EMC-16A	6060-1522	6112-A16	6117-16N	15
20	6006EMC-20	6060-1925	6112-A20	6117-20N	15
20	6006EMC-20	6060-1925	6112-A20	6117-2020	20
25	6006EMC-25	6060-2532	6112-A25	6117-25N	20
25	6006EMC-25	6060-2532	6112-A25	6117-2527	26
32	6006EMC-32A	6060-3238	6112-A32	6117-32N	26
32	6006EMC-32A	6060-3238	6112-A32N	6117-3235	35
40	6006EMC-40	6060-4050	6112-A40	6117-4035	35
40	6006EMC-40	6060-4050	6112-A40	6117-40	40
50	6006EMC-50	6060-5060	6112-A50	6117-5040	40
50	6006EMC-50	6060-5060	6112-A50	6117-50	50
63	6006EMC-63	6060-6472	6112-A63N	6117-63N	50

## Chemical resistance of conduits and accessories material

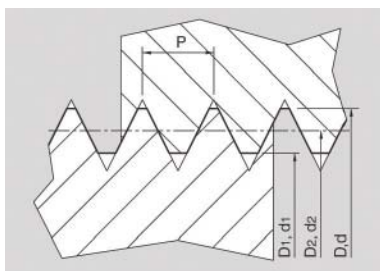
Chemical substance or product	Galvanized steel metal flexible conduits , IP40	Metal flexible conduits in smooth and vacuum PVC coating	Metal flexible conduits in smooth EVA coating	Metal flexible conduits in smooth EVA coating and protected by stainless steel AISI 304 braid	Metal flexible conduits with vacuum PVC coating and protected by galvanised steel braid	Galvanized rigid conduit	AISI 304 stainless steel conduit	Nickel plated brass accesories
	667M	6070, 6071	607E	607ETX	6071T	6008L	6700	
Vinyl acetate	NR	NR			NR	NR	C	C
Acetone	C	NR	RR	NR	NR	C	C	C
Acetic acid	NR	RR	C	C	NR	NR	C	C
Citric acid	C	C	C	C	C	C	C	C
Hydrochloric acid 10 %	NR	C	C	NR	NR	NR	NR	C
Hydrochloric acid 36 %	NR	C	NR	NR	NR	NR	NR	C
Lactic acid	NR	RR	C	C	NR	NR	C	C
Nitric acid 10 %	NR	C	C	C	NR	NR	C	C
Nitric acid 70 %	NR	R			NR	NR	R	R
Oxalic acid	RR	R			RR	RR	R	R
Sulfuric acid 10 %	NR	R	R	NR	NR	NR	NR	NR
Sulfuric acid 70 %	NR	R	R	NR	NR	NR	NR	NR
Sea water	NR	R	R	RR	NR	NR	RR	RR
Hydrogen peroxide 35 %	NR	R	R	R	NR	NR	R	R
Turpentine	R	RR			NR	R	R	R
Ethanol	R	RR			RR	R	R	R
Methyl alcohol	R	NR			NR	R	R	R
Benzol	R	NR	RR	R	NR	R	R	R
Gasoline	R	NR	RR	R	NR	R	R	R
Aluminum chloride	NR	R	R	R	NR	NR	R	R
Sodium chloride	NR	R			NR	NR	R	NR
Zinc chloride	NR	R	R	NR	NR	NR	R	R
Freon 32	NR	RR			NR	NR	R	R
Ozone (gas)	RR	RR			RR	RR	R	R
Ethylene glycol	NR	RR			NR	NR	R	R
Sodium hydroxide (10 %)	NR	R			NR	NR	R	R
Sodium hydroxide (60 %)	NR	R			NR	NR	RR	R
Methylbenzene	R	NR	R	R	NR	R	R	R
Methyl ketone	R	NR			NR	R	R	R
Silver nitrate	NR	R			NR	NR	R	R
Plant oils	R	R			R	R	R	R
ASTM no. 1	R	R	RR	RR	R	R	R	R
ASTM no. 2	R	R	RR	RR	R	R	R	R
ASTM no. 3	R	R	RR	RR	R	R	R	R
Kerosene	R	R			R	R	R	R
Diesel oil	R	RR			RR	R	R	R
Lubricating oil	R	R	RR	RR	R	R	R	R
Transformer oil	R	R	RR	RR	R	R	R	R
White spirit	R	RR			RR	R	R	R
Trichloroethylene	NR	NR	NR	NR	NR	NR	R	R

R – resistant; RR – relatively resistant; NR – not resistant



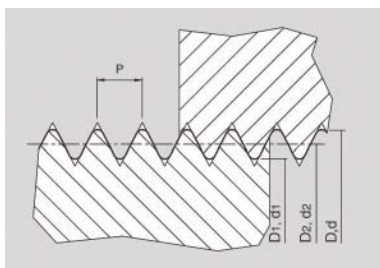
## Thread types and characteristics

Metric thread according to the standards EN 60423 and UNI 5542-65



Name	Dimensions, mm						
	Pitch	external thread			internal thread		
		external	medium	internal	external	medium	internal
	P	d	d2	d1	D	D2	D1
M12	1,5	11,968	10,994	10,128	12	11,026	10,376
M16	1,5	15,968	14,994	14,128	16	15,026	14,376
M20	1,5	19,968	18,994	18,128	20	19,026	18,376
M25	1,5	24,968	23,994	23,128	25	24,026	23,376
M32	1,5	31,968	30,994	30,128	32	31,026	30,376
M40	1,5	39,968	38,994	38,128	40	39,026	38,376
M50	1,5	49,968	48,994	48,128	50	49,026	48,376
M63	1,5	62,968	61,994	61,128	63	62,026	61,376

Pipe thread GAS according to UNI ISO 228/1



Name	Dimensions, mm				
	external diameter of the thread	medium	internal	pitch	the number of turns per 1"
	d = D	d2 = D2	d1 = D1	P	z
G 1/4"	13,157	12,301	11,445	1,337	19
G 3/8"	16,662	15,806	14,95	1,337	19
G 1/2"	20,955	19,793	18,631	1,814	14
G 3/4"	26,441	25,279	24,117	1,814	14
G 1"	33,249	31,77	30,291	2,309	11
G1 1/4"	41,91	40,431	38,952	2,309	11
G1 1/2"	47,803	46,324	44,845	2,309	11
G2"	59,614	58,135	56,656	2,309	11
G2 1/2"	75,184	73,705	72,226	2,309	11
G3"	87,884	86,405	84,926	2,309	11
G4"	113,03	111,551	110,072	2,309	11
G5"	138,43	136,951	135,472	2,309	11

## Mounting instructions

### Metal flexible conduit cutting instruction

#### Metal flexible conduits in coating



Metal flexible conduit can be cut with a handsaw for metal, band saw and angle grinder. Vise allows to cut more precisely and accurately. The cut is carried out vertically, which simplifies further metal flexible conduit input into accessory.

#### Metal flexible conduits protected by steel braid



For easy cutting of braided metal conduit tightly wrap the place of cutting by self-adhesive tape or sticky tape before starting. Carry out the cutting vertically in the middle of the stuck tape. This will make the cut accurate and protect the fingers from damage during further accessory mounting.

### Instruction for accessory mounting on metal flexible conduit



1. First, put on a tightening nut on the metal conduit, and then put on a red tightening sealing ring. The sealing ring is put under the tightening nut from the thick side.



2. Screw the sleeve into metal conduit clockwise until it stops



3. Slide the nut and the sealing ring on the edge of the metal conduit



4. Connect the tightening nut and the body of connectors. Firmly tighten the nut and the body with spanner for the stated degree of IP.

### Mounting instruction of double locking connectors for metal conduits protected by steel braid



1. First, put on a tightening nut on the metal flexible conduit



2. Install intermediate body of connector under the braid after removing the tape from metal conduit. Tightly fix the nut and intermediate body, thereby securing the braid of the metal conduit in the accessory



3. When using metal conduit in a smooth coating – pass to step 4. When using a vacuum metal conduit it is necessary to screw a sealing muff (white) on the edge to obtain a hermetic connection. Tip: move the braid from the edge for easy installation of the sealing muff



4. Put on a red tightening sealing ring on the metal conduit. The sealing ring is put under the tightening nut from the thick side.



5. Screw the sleeve into the metal conduit clockwise until it stops



6. Slide the nut, intermediate body of connector and the sealing ring on the edge of the metal conduit



7. Connect the intermediate body of connector and the body of connector. Firmly tighten the nut, intermediate body and body with spanner for the stated degree of IP and reliable braid fixing.







## Sheet trays "S5 Combitech"

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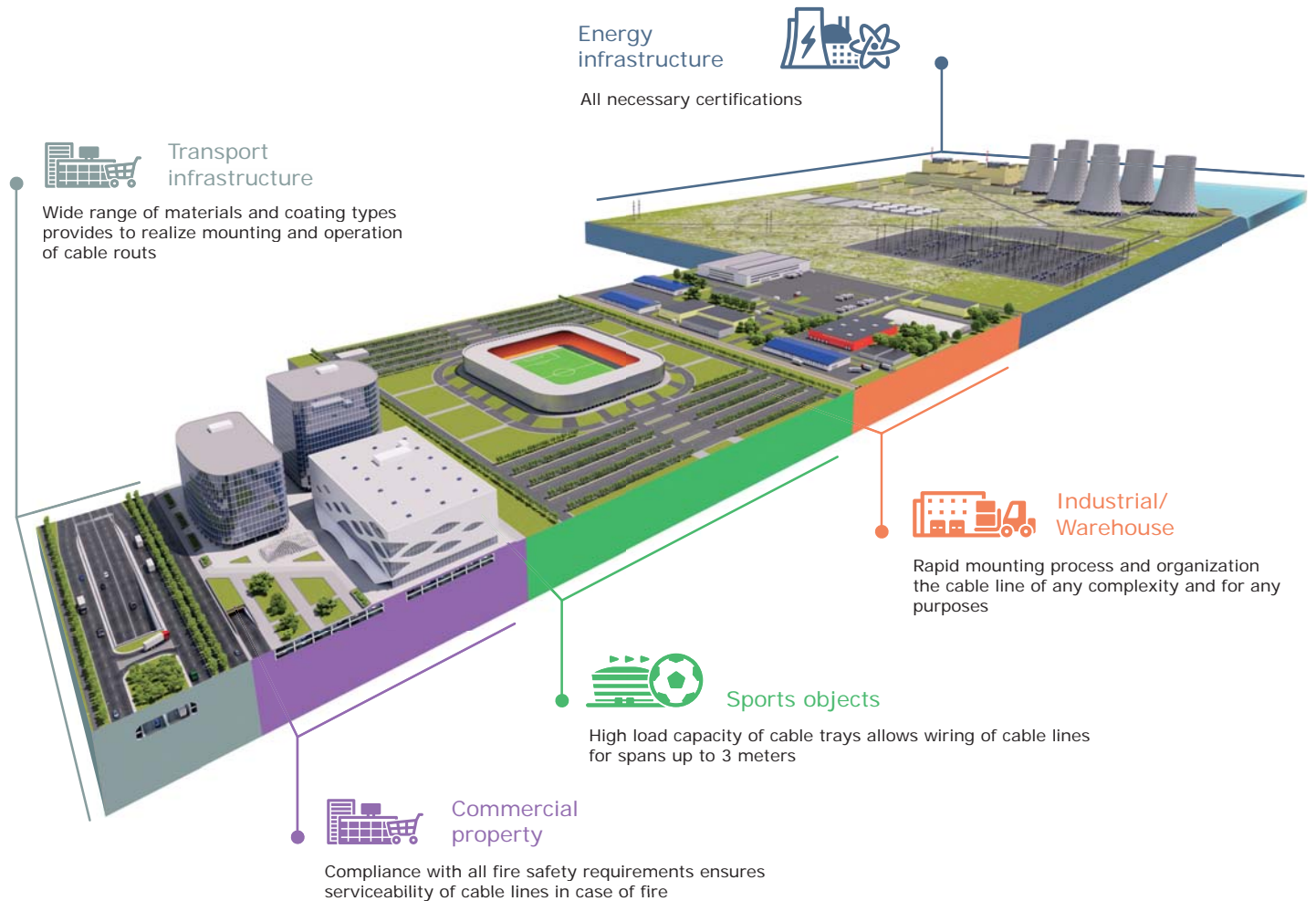
## Sheet metal trays system "S5 Combitech"

### Area of application

"S5 Combitech" is a system of perforated and non-perforated metal trays, designed for laying of wires and cables of power and signal wiring at open electrical wirings and open laying of cable lines at wall, ceiling, inclined and combined installation types on the objects of industrial, commercial and civil engineering.

"S5 Combitech" trays are made of high-quality sheet steel for different climate conditions; this guarantees long service life and high reliability of cable line in general.

The special structure of "S5 Combitech" trays excludes the possibility of cable damage by laying, the connect lap with the use of brand connection "male-female" reduces the installation time to 60 %. The wide range of system and installation accessories gives the opportunity to lay the line of any complexity.





## Main advantages



**Stamping of DKC logo to protect products from forgery**



**Increased load carrying capacity and protection of cables against damage**



**Reinforced perforation – the increase of carrying capacity up to 40 %**



**Pre-screwless fixation**



**Double continuous ground network on the tray and cover**



**Protection degree of IP44**

## Advantages

### High seismic resistance

Sheet trays system was approved by the Russian Maritime Register of Shipping. This allows using it at the objects, located in the sea and coastal areas.

### High earthquake resistance

Trays were tested on the vibrating stands in the laboratory VNIIE. The results of experimental researches proved the possibility of sheet trays application on the territory with magnitude of 9 points.

### Compliance with European Standards

Sheet trays have passed the series of trials and tests, specified by European standard EN 61537:2007. This test gave the possibility to use "S5 Combitech" trays not only on the territory of Russia, but also abroad. The successful certification of sheet trays in Europe proves high quality of output products once again.

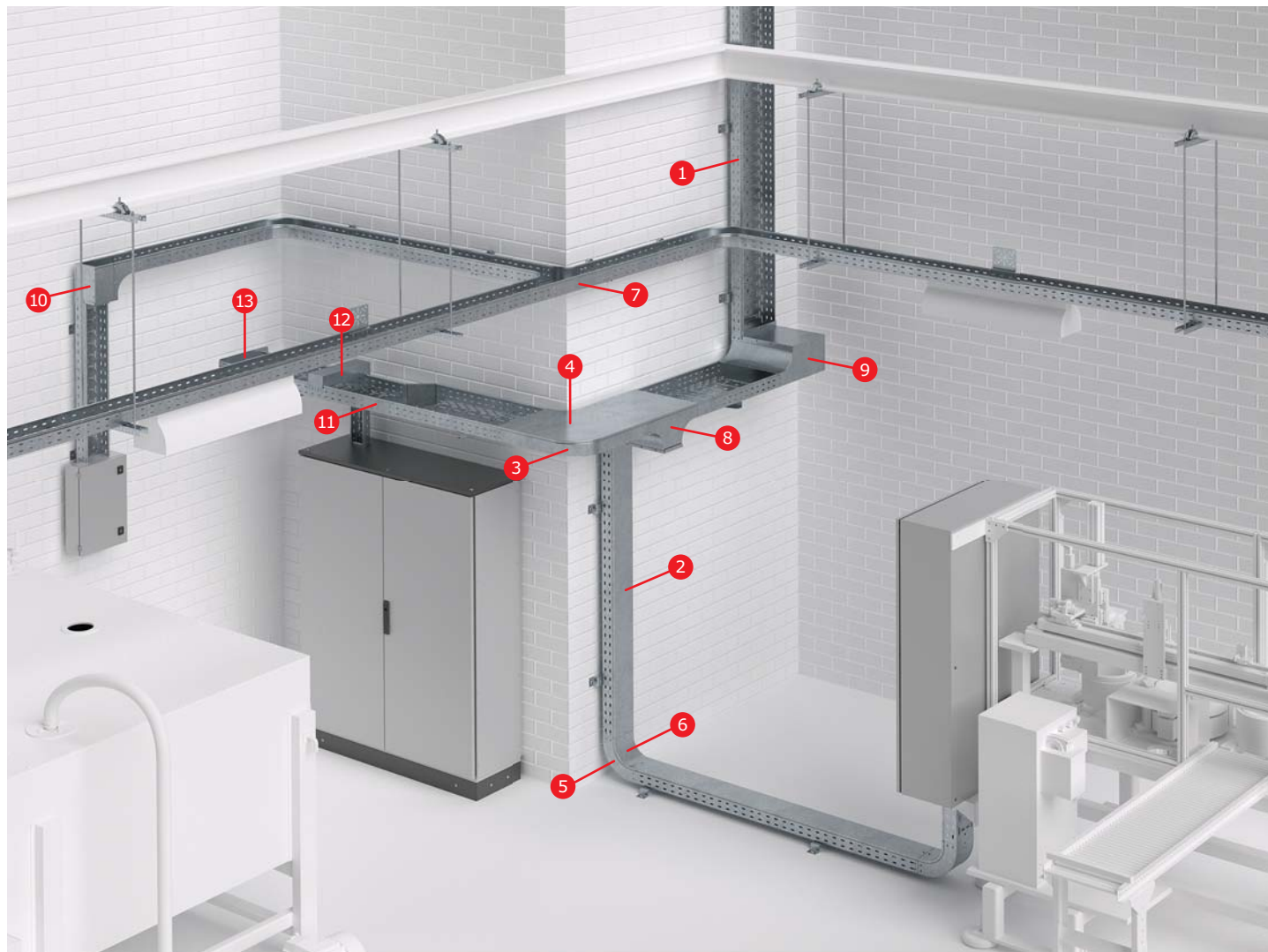
### The choice of professionals

"S5 Combitech" has the certificate of compliance of explanation conditions at the facilities of "Gazprom" and has no restrictions for use at the facilities of "Transneft".

### Corrosion restriction in sea water

Sheet trays system was approved by the Russian Maritime Register of Shipping. This allows using it at the facilities, located in the sea and coastal areas.

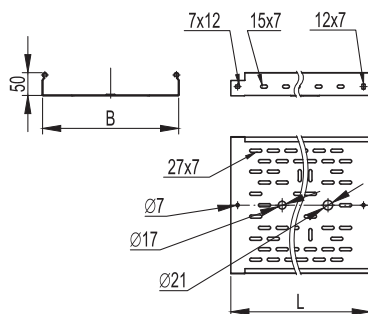
## System composition



- |                                     |  |
|-------------------------------------|--|
| ① Perforated straight element       | ⑧ Skew falling tee with width expansion TDSA |
| ② Cover for straight element        | ⑨ Left-hand skew inside bend 90° CSSS        |
| ③ Horizontal bend 90° CPO           | ⑩ Right-hand skew outside bend 90° CDSD      |
| ④ Cover for horizontal bend 90° CPO | ⑪ Left-hand reducer RRS                      |
| ⑤ Inside bend 90° CS                | ⑫ Cover-type vertical branch DDS             |
| ⑥ Cover for inside bend 90° CS      | ⑬ Square coupler FR                          |
| ⑦ Horizontal Tee DPT                |  |

## Straight elements

### Perforated trays, 50 mm high



#### Purpose:

- construction of the cable lines for wires and cables installation.

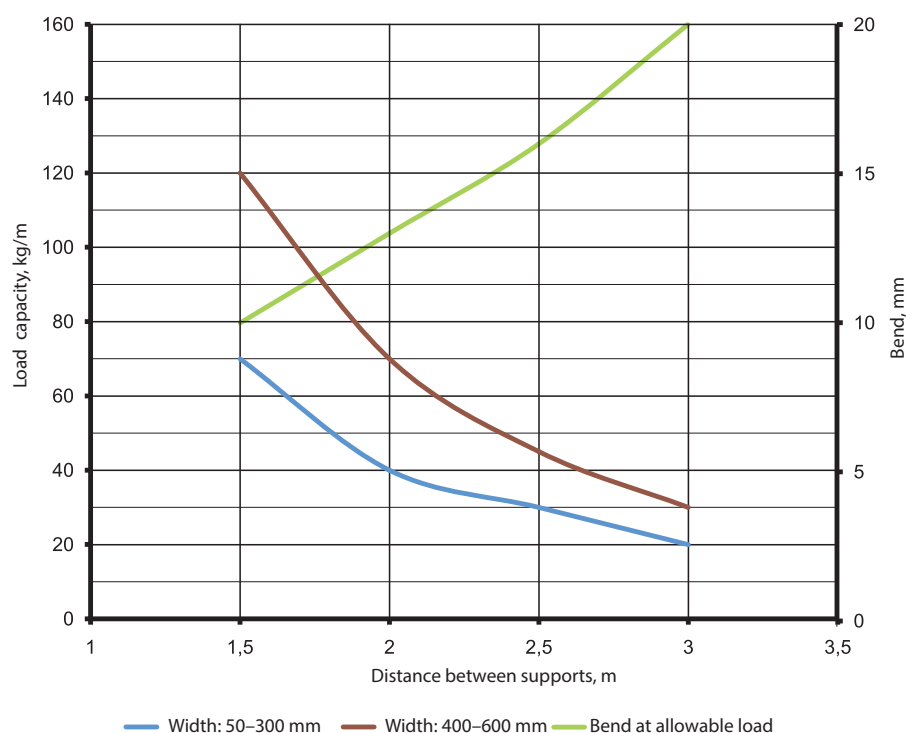
#### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating.

Height H, mm	Length L, mm	Width B, mm	Thickness (ver. 1), mm	Weight (ver. 1), kg/m	T.U.A.,* mm <sup>2</sup>	Quantity in a pack (ver. 1), m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	3000	50	0,7	0,72	2500	36	35260	35260HDZ	35260INOX	35260ZL
		100	0,7	1,07	4900	36	35262	35262HDZ	35262INOX	35262ZL
		150	0,7	1,31	7400	24	35263	35263HDZ	35263INOX	35263ZL
		200	0,8	1,77	9800	24	35264	35264HDZ	35264INOX	35264ZL
		300	0,8	2,31	14700	12	35265	35265HDZ	35265INOX	35265ZL
		400	1,0	3,54	19600	12	35266	35266HDZ	35266INOX	35266ZL
		500	1,0	4,22	24500	12	35267	35267HDZ	35267INOX	35267ZL
50	2000	600	1,0	4,89	30000	12	35268	35268HDZ	35268INOX	35268ZL
		50	0,7	0,72	2500	24	35250	35250HDZ	35250INOX	35250ZL
		100	0,7	1,07	4900	24	35252	35252HDZ	35252INOX	35252ZL
		150	0,7	1,31	7400	16	35253	35253HDZ	35253INOX	35253ZL
		200	0,8	1,77	9800	16	35254	35254HDZ	35254INOX	35254ZL
		300	0,8	2,31	14700	8	35255	35255HDZ	35255INOX	35255ZL
		400	1,0	3,54	19600	8	35256	35256HDZ	35256INOX	35256ZL
		500	1,0	4,22	24500	8	35257	35257HDZ	35257INOX	35257ZL

\* Theoretically used tray area – useful tray section in which the cable is placed

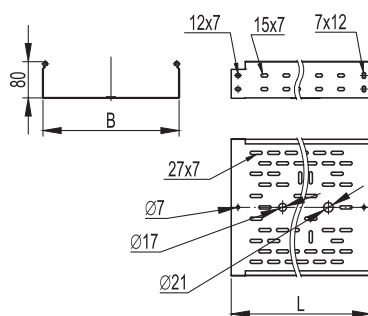
### Load diagrams



#### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flecion does not exceed 1/100 of the span;
- the maximum transversal flecion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Perforated trays, 80 mm high



### Purpose:

- construction of the cable lines for wires and cables installation.

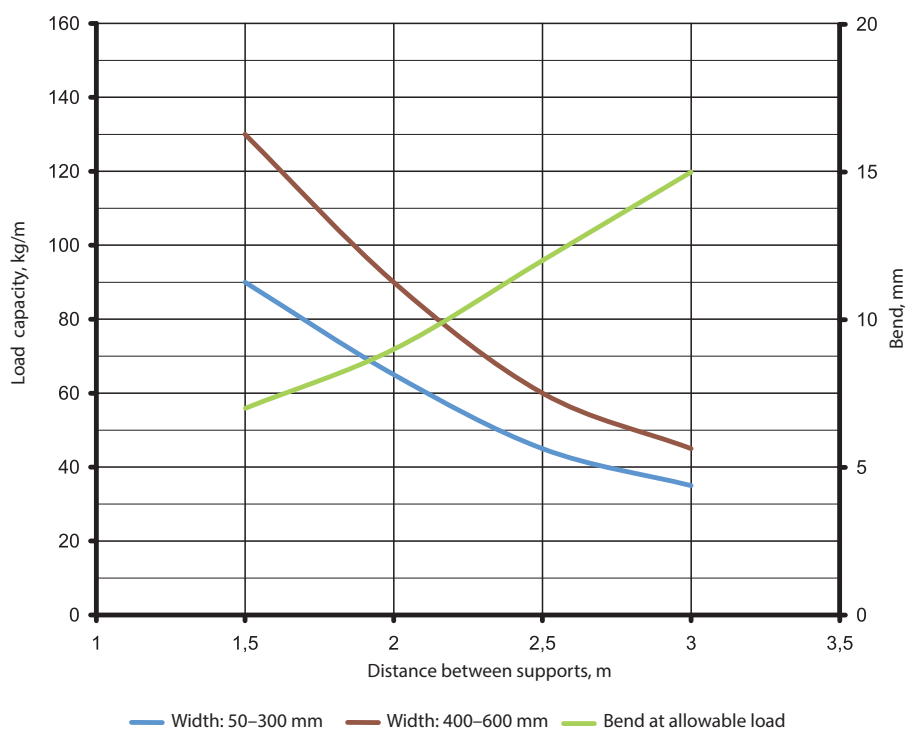
### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating.

Height H, mm	Length L, mm	Width B, mm	Thickness (ver. 1), mm	Weight (ver. 1), kg/m	T.U.A.,* mm <sup>2</sup>	Quantity in a pack (ver. 1), m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	3000	80	0,7	1,26	6200	24	35301	35301HDZ	35301INOX	35301ZL
		100	0,7	1,36	7800	36	35302	35302HDZ	35302INOX	35302ZL
		150	0,7	1,6	11800	24	35303	35303HDZ	35303INOX	35303ZL
		200	0,8	2,09	15700	24	35304	35304HDZ	35304INOX	35304ZL
		300	0,8	2,64	23600	12	35305	35305HDZ	35305INOX	35305ZL
		400	1,0	3,94	31500	12	35306	35306HDZ	35306INOX	35306ZL
		500	1,0	4,62	39500	12	35307	35307HDZ	35307INOX	35307ZL
80	2000	600	1,0	5,32	48000	12	35308	35308HDZ	35308INOX	35308ZL
		80	0,7	1,26	6200	16	35311	35311HDZ	35311INOX	35311ZL
		100	0,7	1,36	7800	16	35312	35312HDZ	35312INOX	35312ZL
		150	0,7	1,6	11800	8	35313	35313HDZ	35313INOX	35313ZL
		200	0,8	2,09	15700	8	35314	35314HDZ	35314INOX	35314ZL
		300	0,8	2,64	23600	8	35315	35315HDZ	35315INOX	35315ZL
		400	1,0	3,94	31500	8	35316	35316HDZ	35316INOX	35316ZL
		500	1,0	4,62	39500	8	35317	35317HDZ	35317INOX	35317ZL

\* Theoretically used tray area – useful tray section in which the cable is placed

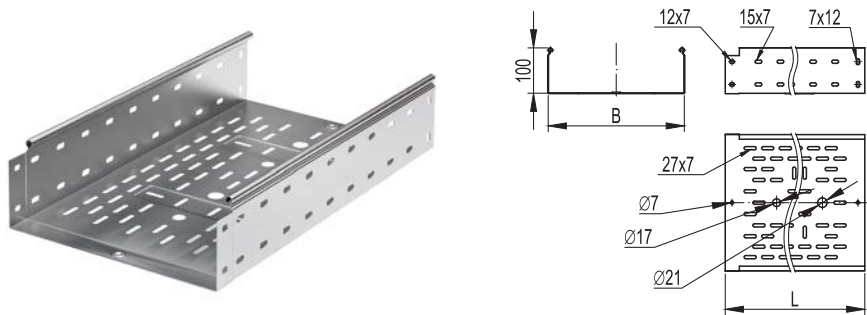
## Load diagrams



### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flecion does not exceed 1/100 of the span;
- the maximum transversal flecion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

Perforated trays, 100 mm high

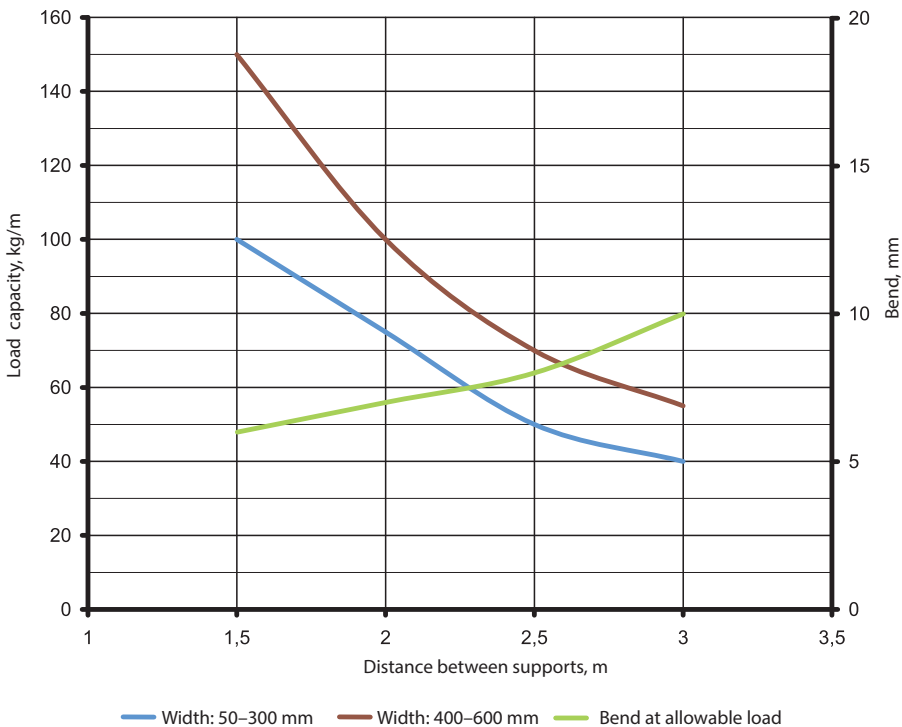


- Purpose:**
- construction of the cable lines for wires and cables installation.
- Characteristics:**
- version 1 – Sendzimir galvanized steel;
  - version 2 – hot-dip galvanized steel (HDZ);
  - version 3 – stainless steel (AISI 304);
  - version 4 – zinc flake coating.

Height H, mm	Length L, mm	Width B, mm	Thickness (ver. 1), mm	Weight (ver. 1), kg/m	T.U.A.,* mm <sup>2</sup>	Quantity in a pack (ver. 1), m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
100	3000	100	0,7	1,55	9800	18	35341	35341HDZ	35341INOX	35341ZL
		150	0,7	1,79	14800	12	35342	35342HDZ	35342INOX	35342ZL
		200	0,8	2,31	19700	12	35343	35343HDZ	35343INOX	35343ZL
		300	0,8	2,86	29600	6	35344	35344HDZ	35344INOX	35344ZL
		400	1,0	4,13	39500	6	35345	35345HDZ	35345INOX	35345ZL
		500	1,0	4,9	49500	6	35346	35346HDZ	35346INOX	35346ZL
100	2000	600	1,0	5,67	60000	6	35347	35347HDZ	35347INOX	35347ZL
		100	0,7	1,55	9800	12	35331	35331HDZ	35331INOX	35331ZL
		150	0,7	1,79	14800	8	35332	35332HDZ	35332INOX	35332ZL
		200	0,8	2,31	19700	8	35333	35333HDZ	35333INOX	35333ZL
		300	0,8	2,86	29600	4	35334	35334HDZ	35334INOX	35334ZL
		400	1,0	4,13	39500	4	35335	35335HDZ	35335INOX	35335ZL
		500	1,0	4,9	49500	4	35336	35336HDZ	35336INOX	35336ZL

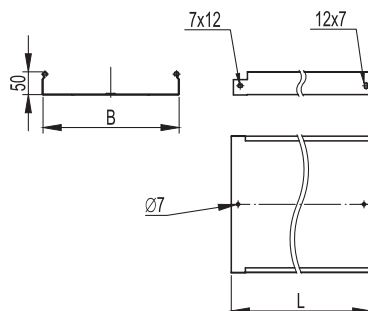
\* Theoretically used tray area – useful tray section in which the cable is placed

Load diagrams



- Load test conditions:**
- for versions 1, 2 and 4;
  - tests according to GOST 52868, item 10.3.3;
  - the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
  - the maximum linear flecion does not exceed 1/100 of the span;
  - the maximum transversal flecion does not exceed 1/20 of the tray base width;
  - safety factor is 1,7 of declared load.

## Non-perforated trays, 50 mm high



### Purpose:

- construction of the cable lines for wires and cables installation.

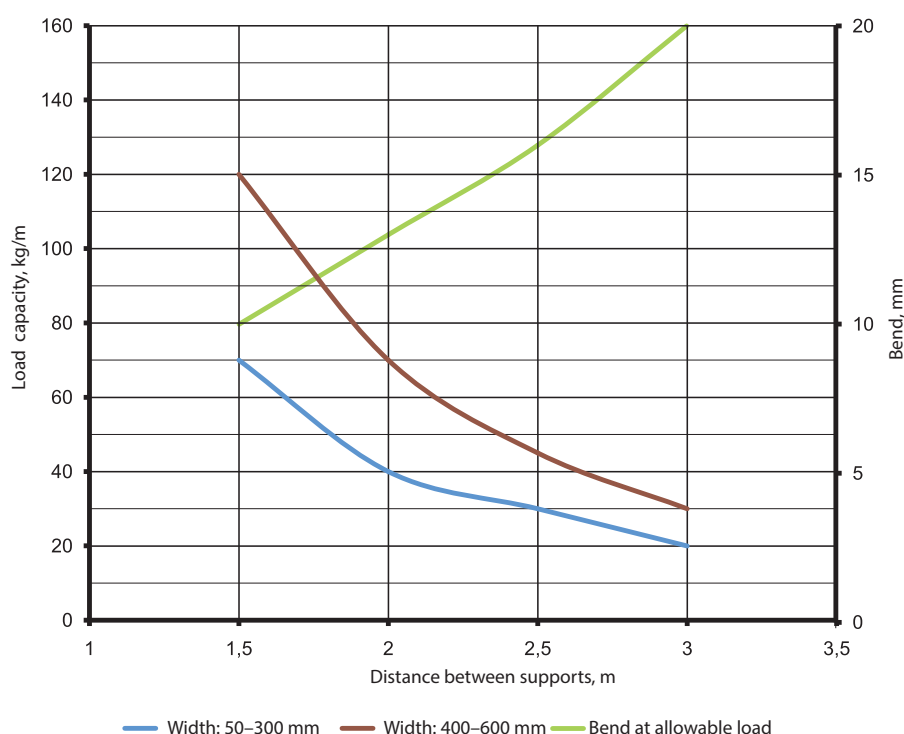
### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- protection degree is up to IP44 by using special seals and metal plates (pg. 444–445).

Height H, mm	Length L, mm	Width B, mm	Thickness (ver. 1), mm	Weight (ver. 1), kg/m	T.U.A.* mm <sup>2</sup>	Quantity in a pack (ver. 1), m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	3000	50	0,7	0,84	2500	36	35020	35020HDZ	35020INOX	35020ZL
		100	0,7	1,27	4900	36	35022	35022HDZ	35022INOX	35022ZL
		150	0,7	1,54	7400	24	35023	35023HDZ	35023INOX	35023ZL
		200	0,8	2,08	9800	24	35024	35024HDZ	35024INOX	35024ZL
		300	0,8	2,72	14700	12	35025	35025HDZ	35025INOX	35025ZL
		400	1,0	4,16	19600	12	35026	35026HDZ	35026INOX	35026ZL
		500	1,0	4,96	24500	12	35027	35027HDZ	35027INOX	35027ZL
		600	1,0	5,76	30000	12	35028	35028HDZ	35028INOX	35028ZL
50	2000	50	0,7	0,84	2500	24	35010	35010HDZ	35010INOX	35010ZL
		100	0,7	1,27	4900	24	35012	35012HDZ	35012INOX	35012ZL
		150	0,7	1,54	7400	16	35013	35013HDZ	35013INOX	35013ZL
		200	0,8	2,08	9800	16	35014	35014HDZ	35014INOX	35014ZL
		300	0,8	2,72	14700	8	35015	35015HDZ	35015INOX	35015ZL
		400	1,0	4,16	19600	8	35016	35016HDZ	35016INOX	35016ZL
		500	1,0	4,96	24500	8	35017	35017HDZ	35017INOX	35017ZL

\* Theoretically used tray area – useful tray section in which the cable is placed

## Load diagrams

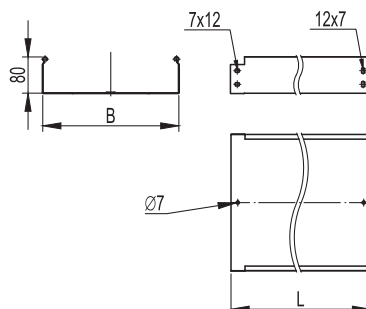


### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flexion does not exceed 1/100 of the span;
- the maximum transversal flexion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.



## Non-perforated trays, 80 mm high



### Purpose:

- construction of the cable lines for wires and cables installation.

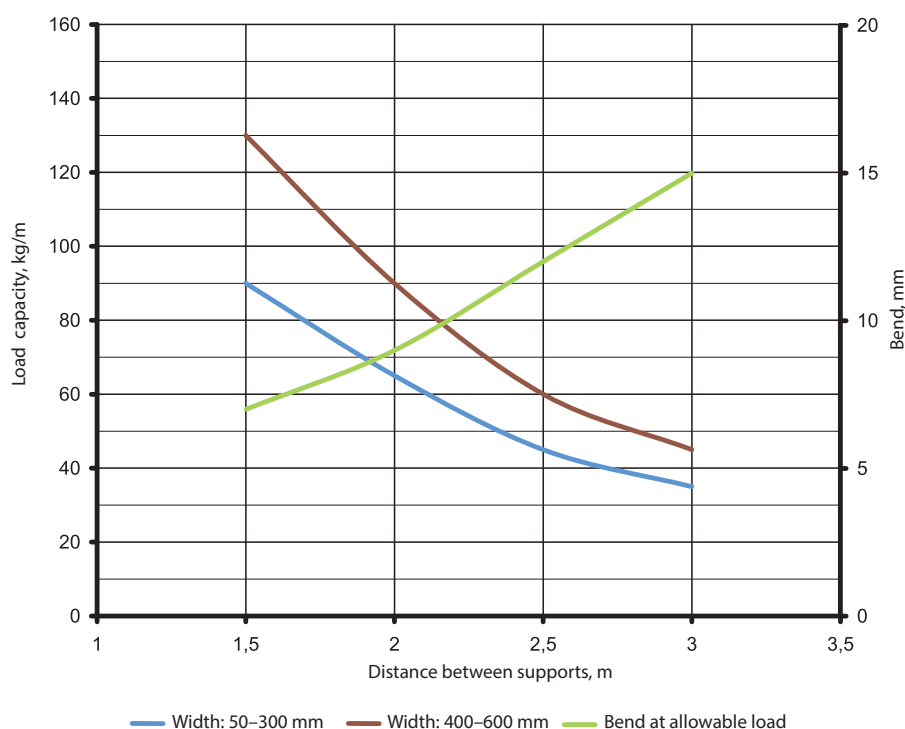
### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- protection degree is up to IP44 by using special seals and metal plates (pg. 444–445).

Height H, mm	Length L, mm	Width B, mm	Thickness (ver. 1), mm	Weight (ver. 1), kg/m	T.U.A.,* mm <sup>2</sup>	Quantity in a pack (ver. 1), m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	3000	80	0,7	1,48	6200	24	35061	35061HDZ	35061INOX	35061ZL
		100	0,7	1,6	7800	36	35062	35062HDZ	35062INOX	35062ZL
		150	0,7	1,88	11800	24	35063	35063HDZ	35063INOX	35063ZL
		200	0,8	2,46	15700	24	35064	35064HDZ	35064INOX	35064ZL
		300	0,8	3,1	23600	12	35065	35065HDZ	35065INOX	35065ZL
		400	1,0	4,64	31500	12	35066	35066HDZ	35066INOX	35066ZL
		500	1,0	5,44	39500	12	35067	35067HDZ	35067INOX	35067ZL
80	2000	600	1,0	6,22	48000	12	35068	35068HDZ	35068INOX	35068ZL
		80	0,7	1,48	6200	16	35051	35051HDZ	35051INOX	35051ZL
		100	0,7	1,6	7800	24	35052	35052HDZ	35052INOX	35052ZL
		150	0,7	1,88	11800	16	35053	35053HDZ	35053INOX	35053ZL
		200	0,8	2,46	15700	16	35054	35054HDZ	35054INOX	35054ZL
		300	0,8	3,1	23600	8	35055	35055HDZ	35055INOX	35055ZL
		400	1,0	4,64	31500	8	35056	35056HDZ	35056INOX	35056ZL
		500	1,0	5,44	39500	8	35057	35057HDZ	35057INOX	35057ZL

\* Theoretically used tray area – useful tray section in which the cable is placed

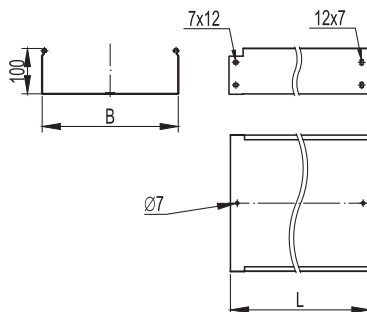
## Load diagrams



### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4–1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flecion does not exceed 1/100 of the span;
- the maximum transversal flecion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Non-perforated trays, 100 mm high



### Purpose:

- construction of the cable lines for wires and cables installation.

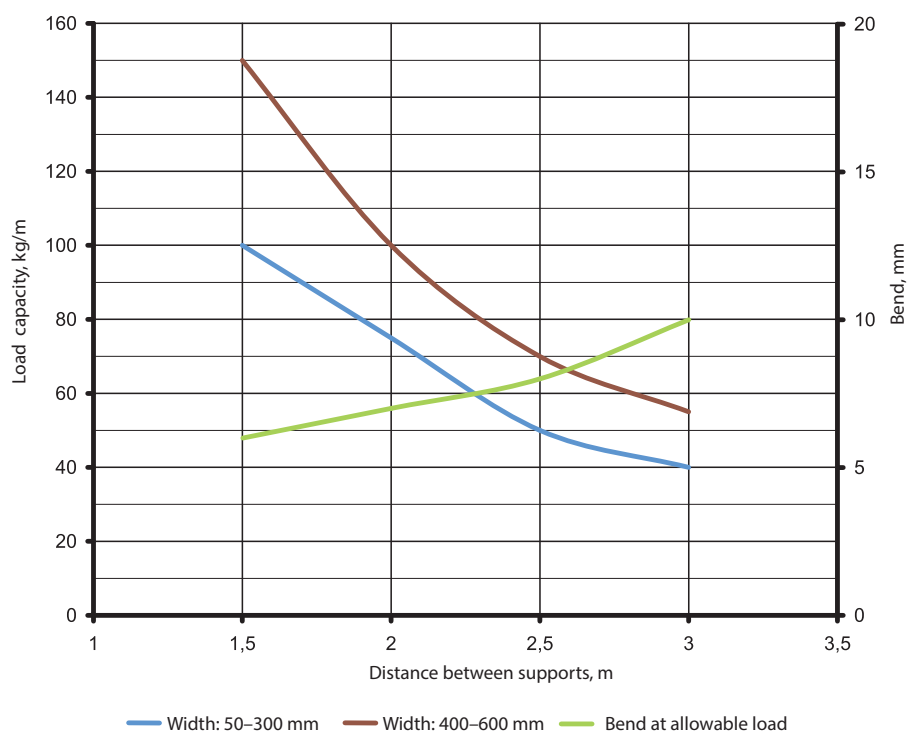
### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- protection degree is up to IP44 by using special seals and metal plates (pg. 444–445).

Height H, mm	Length L, mm	Width B, mm	Thickness (ver. 1), mm	Weight (ver. 1), kg/m	T.U.A.,* mm <sup>2</sup>	Quantity in a pack (ver. 1), m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
100	3000	100	0,7	1,82	9800	18	35101	35101HDZ	35101INOX	35101ZL
		150	0,7	2,1	14800	12	35102	35102HDZ	35102INOX	35102ZL
		200	0,8	2,71	19700	12	35103	35103HDZ	35103INOX	35103ZL
		300	0,8	3,36	29600	6	35104	35104HDZ	35104INOX	35104ZL
		400	1,0	4,96	39500	6	35105	35105HDZ	35105INOX	35105ZL
		500	1,0	5,76	49500	6	35106	35106HDZ	35106INOX	35106ZL
		600	1,0	6,56	60000	6	35107	35107HDZ	35107INOX	35107ZL
100	2000	100	0,7	1,82	9800	12	35111	35111HDZ	35111INOX	35111ZL
		150	0,7	2,1	14800	8	35112	35112HDZ	35112INOX	35112ZL
		200	0,8	2,71	19700	8	35113	35113HDZ	35113INOX	35113ZL
		300	0,8	3,36	29600	4	35114	35114HDZ	35114INOX	35114ZL
		400	1,0	4,96	39500	4	35115	35115HDZ	35115INOX	35115ZL
		500	1,0	5,76	49500	4	35116	35116HDZ	35116INOX	35116ZL

\* Theoretically used tray area – useful tray section in which the cable is placed.

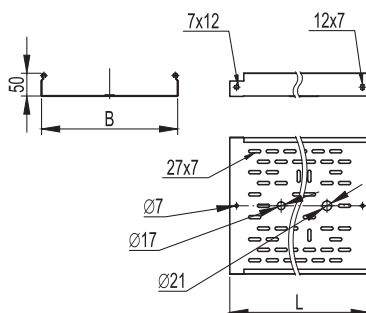
## Load diagrams



### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flecion does not exceed 1/100 of the span;
- the maximum transversal flecion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Perforated trays, 50 mm height, special version of thickness

**Purpose:**

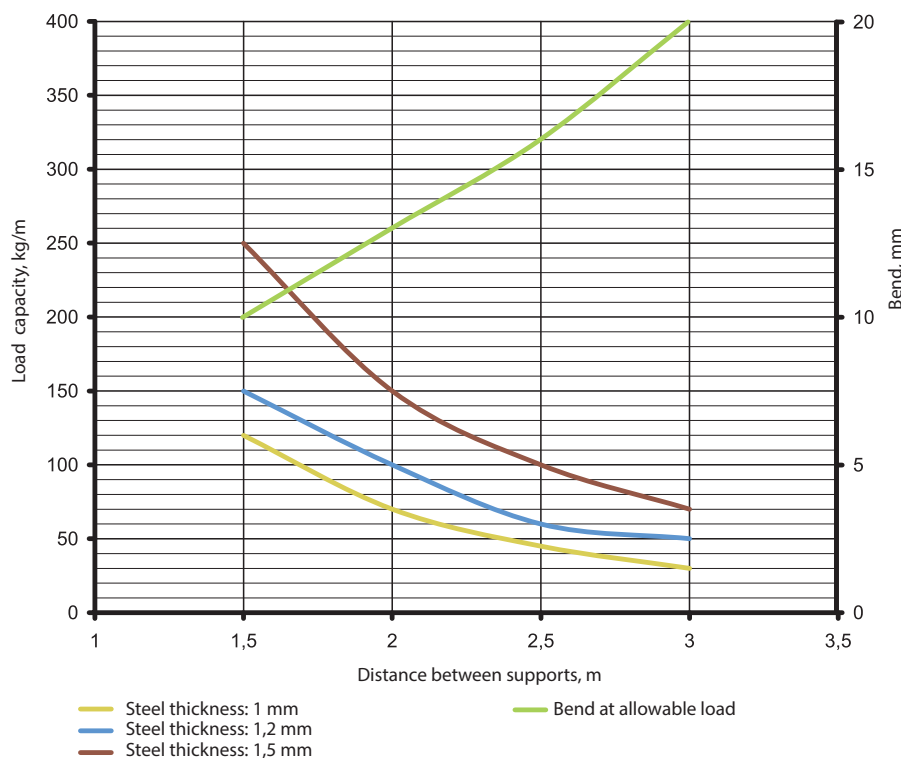
- construction of the cable lines for wires and cables installation.

**Characteristics:**

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- trays with special version of thickness have no side perforation.

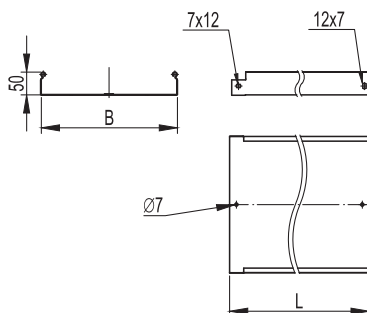
Steel thickness, mm	Height H, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
1,0	50	3000	50	3526010	3526010HDZ	3526010INOX	3526010ZL
			100	3526210	3526210HDZ	3526210INOX	3526210ZL
			150	3526310	3526310HDZ	3526310INOX	3526310ZL
			200	3526410	3526410HDZ	3526410INOX	3526410ZL
			300	3526510	3526510HDZ	3526510INOX	3526510ZL
			400	35266	35266HDZ	35266INOX	35266ZL
			500	35267	35267HDZ	35267INOX	35267ZL
1,2	50	3000	600	35268	35268HDZ	35268INOX	35268ZL
			50	3526012	3526012HDZ	–	3526012ZL
			100	3526212	3526212HDZ	–	3526212ZL
			150	3526312	3526312HDZ	–	3526312ZL
			200	3526412	3526412HDZ	–	3526412ZL
			300	3526512	3526512HDZ	–	3526512ZL
			400	3526612	3526612HDZ	–	3526612ZL
1,5	50	3000	500	3526712	3526712HDZ	–	3526712ZL
			600	3526812	3526812HDZ	–	3526812ZL
			50	3526015	3526015HDZ	–	3526015ZL
			100	3526215	3526215HDZ	–	3526215ZL
			150	3526315	3526315HDZ	–	3526315ZL
			200	3526415	3526415HDZ	–	3526415ZL
			300	3526515	3526515HDZ	–	3526515ZL
			400	3526615	3526615HDZ	–	3526615ZL
			500	3526715	3526715HDZ	–	3526715ZL

## Load diagrams

**Load test conditions:**

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flecion does not exceed 1/100 of the span;
- the maximum transversal flecion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Non-perforated trays, 50 mm high, special version of thickness



### Purpose:

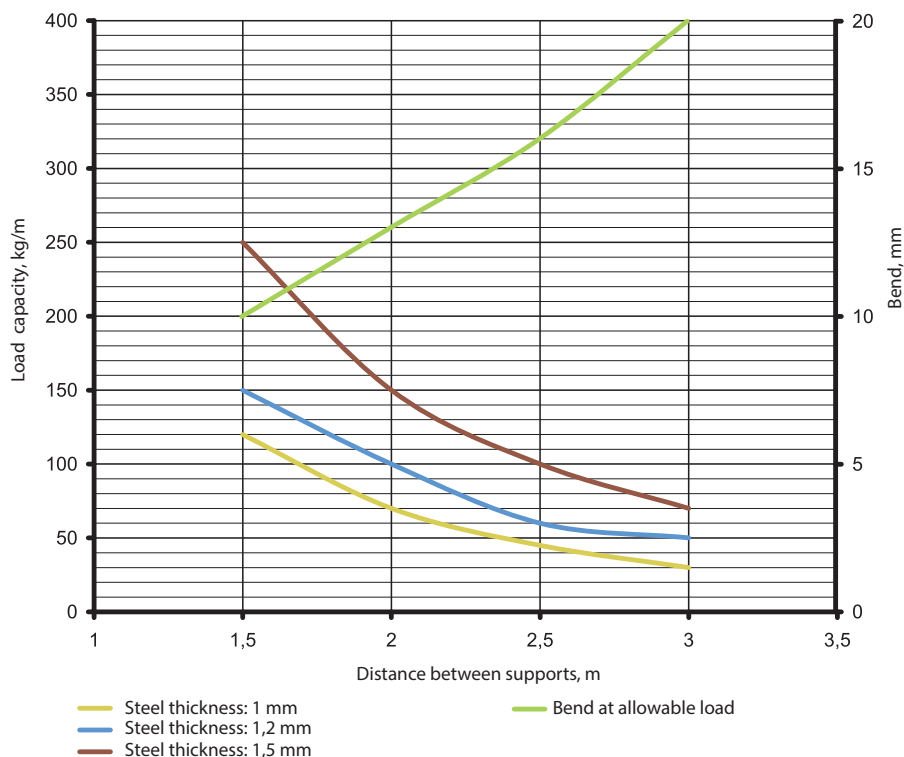
- construction of the cable lines for wires and cables installation.

### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- protection degree is up to IP44 by using special seals and metal plates (pg. 444–445).

Steel thickness, mm	Height H, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
1,0	50	3000	50	3502010	3502010HDZ	3502010INOX	3502010ZL
			100	3502210	3502210HDZ	3502210INOX	3502210ZL
			150	3502310	3502310HDZ	3502310INOX	3502310ZL
			200	3502410	3502410HDZ	3502410INOX	3502410ZL
			300	3502510	3502510HDZ	3502510INOX	3502510ZL
			400	35026	35026HDZ	35026INOX	35026ZL
			500	35027	35027HDZ	35027INOX	35027ZL
			600	35028	35028HDZ	35028INOX	35028ZL
1,2	50	3000	50	3502012	3502012HDZ	–	3502012ZL
			100	3502212	3502212HDZ	–	3502212ZL
			150	3502312	3502312HDZ	–	3502312ZL
			200	3502412	3502412HDZ	–	3502412ZL
			300	3502512	3502512HDZ	–	3502512ZL
			400	3502612	3502612HDZ	–	3502612ZL
			500	3502712	3502712HDZ	–	3502712ZL
			600	3502812	3502812HDZ	–	3502812ZL
1,5	50	3000	50	3502015	3502015HDZ	–	3502015ZL
			100	3502215	3502215HDZ	–	3502215ZL
			150	3502315	3502315HDZ	–	3502315ZL
			200	3502415	3502415HDZ	–	3502415ZL
			300	3502515	3502515HDZ	–	3502515ZL
			400	3502615	3502615HDZ	–	3502615ZL
			500	3502715	3502715HDZ	–	3502715ZL

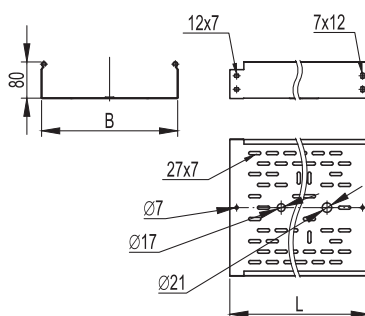
## Load diagrams



### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flexion does not exceed 1/100 of the span;
- the maximum transversal flexion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Perforated trays, 80 mm high, special version of thickness



### Purpose:

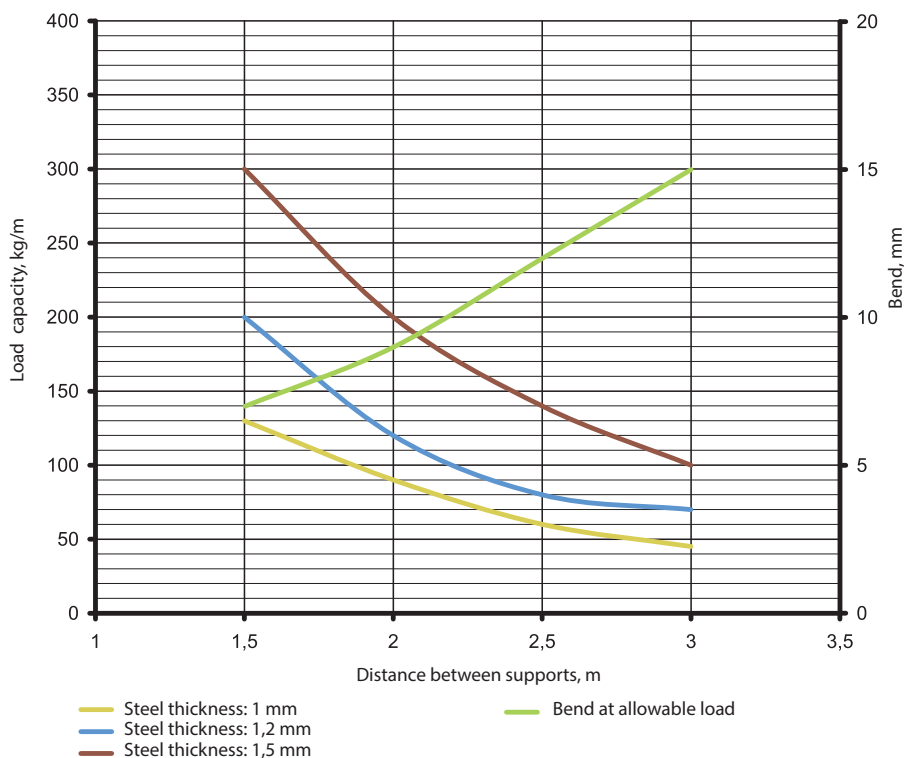
- construction of the cable lines for wires and cables installation.

### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- trays with special version of thickness have no side perforation.

Steel thickness, mm	Height H, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 2	Code, version 4
1,0	80	3000	80	3530110	3530110HDZ	3530110INOX	3530110ZL
			100	3530210	3530210HDZ	3530210INOX	3530210ZL
			150	3530310	3530310HDZ	3530310INOX	3530310ZL
			200	3530410	3530410HDZ	3530410INOX	3530410ZL
			300	3530510	3530510HDZ	3530510INOX	3530510ZL
			400	35306	35306HDZ	35306INOX	35306ZL
			500	35307	35307HDZ	35307INOX	35307ZL
			600	35308	35308HDZ	35308INOX	35308ZL
1,2	80	3000	80	3530112	3530112HDZ	–	3530112ZL
			100	3530212	3530212HDZ	–	3530212ZL
			150	3530312	3530312HDZ	–	3530312ZL
			200	3530412	3530412HDZ	–	3530412ZL
			300	3530512	3530512HDZ	–	3530512ZL
			400	3530612	3530612HDZ	–	3530612ZL
			500	3530712	3530712HDZ	–	3530712ZL
			600	3530812	3530812HDZ	–	3530812ZL
1,5	80	3000	80	3530115	3530115HDZ	–	3530115ZL
			100	3530215	3530215HDZ	–	3530215ZL
			150	3530315	3530315HDZ	–	3530315ZL
			200	3530415	3530415HDZ	–	3530415ZL
			300	3530515	3530515HDZ	–	3530515ZL
			400	3530615	3530615HDZ	–	3530615ZL
			500	3530715	3530715HDZ	–	3530715ZL

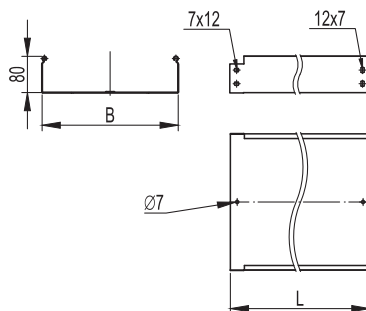
## Load diagrams



### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flecion does not exceed 1/100 of the span;
- the maximum transversal flecion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Non-perforated trays, 80 mm high, special version of thickness



### Purpose:

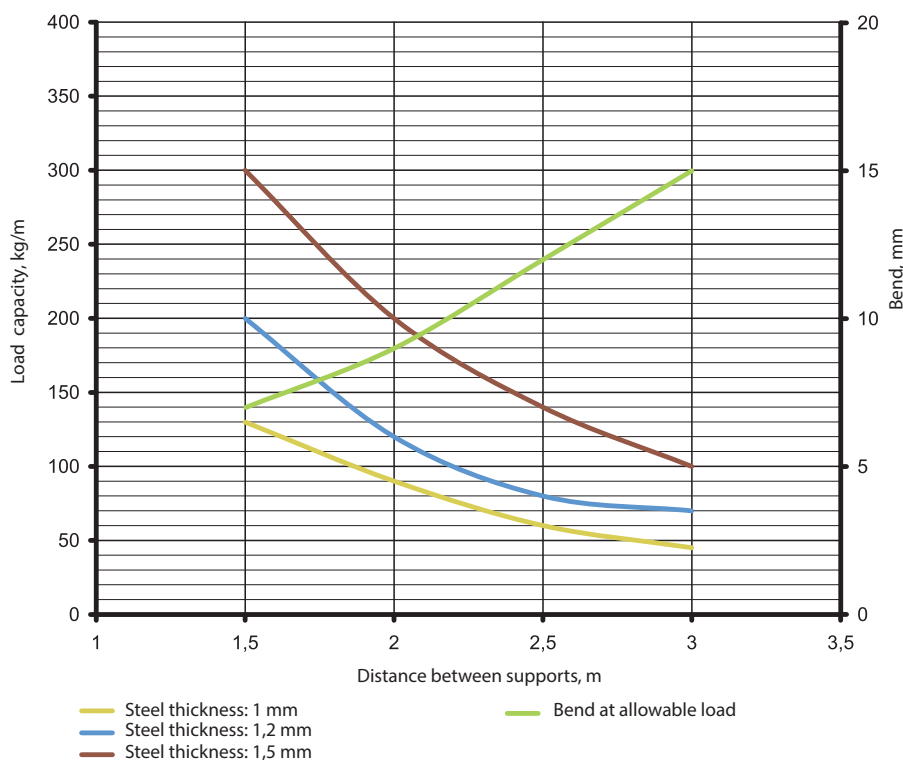
- construction of the cable lines for wires and cables installation.

### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- protection degree is up to IP44 by using special seals and metal plates (pg. 444–445).

Steel thickness, mm	Height H, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
1,0	80	3000	80	3506110	3506110HDZ	3506110INOX	3506110ZL
			100	3506210	3506210HDZ	3506210INOX	3506210ZL
			150	3506310	3506310HDZ	3506310INOX	3506310ZL
			200	3506410	3506410HDZ	3506410INOX	3506410ZL
			300	3506510	3506510HDZ	3506510INOX	3506510ZL
			400	35066	35066HDZ	35066INOX	35066ZL
			500	35067	35067HDZ	35067INOX	35067ZL
			600	35068	35068HDZ	35068INOX	35068ZL
1,2	80	3000	80	3506112	3506112HDZ	–	3506112ZL
			100	3506212	3506212HDZ	–	3506212ZL
			150	3506312	3506312HDZ	–	3506312ZL
			200	3506412	3506412HDZ	–	3506412ZL
			300	3506512	3506512HDZ	–	3506512ZL
			400	3506612	3506612HDZ	–	3506612ZL
			500	3506712	3506712HDZ	–	3506712ZL
			600	3506812	3506812HDZ	–	3506812ZL
1,5	80	3000	80	3506115	3506115HDZ	–	3506115ZL
			100	3506215	3506215HDZ	–	3506215ZL
			150	3506315	3506315HDZ	–	3506315ZL
			200	3506415	3506415HDZ	–	3506415ZL
			300	3506515	3506515HDZ	–	3506515ZL
			400	3506615	3506615HDZ	–	3506615ZL
			500	3506715	3506715HDZ	–	3506715ZL

## Load diagrams

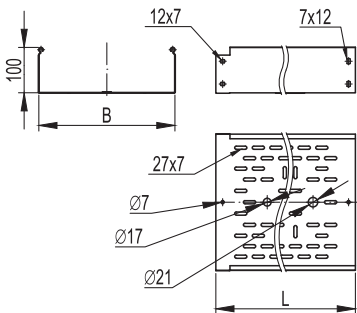


### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4–1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flexion does not exceed 1/100 of the span;
- the maximum transversal flexion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.



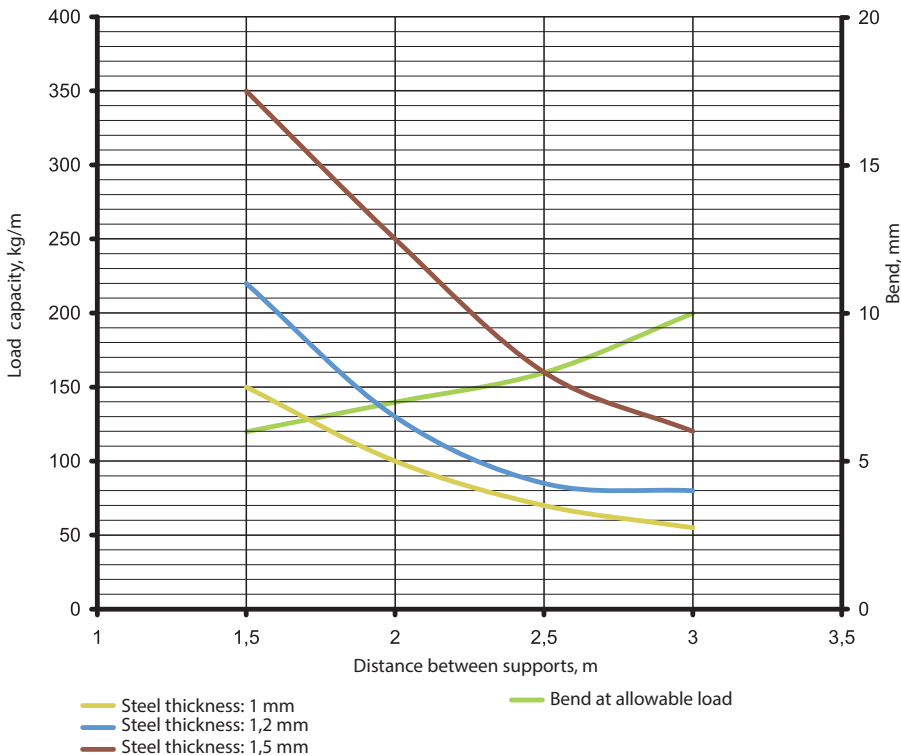
Perforated trays, 100 mm high, special version of thickness



- Purpose:**
- construction of the cable lines for wires and cables installation.
- Characteristics:**
- version 1 – Sendzimir galvanized steel;
  - version 2 – hot-dip galvanized steel (HDZ);
  - version 3 – stainless steel (AISI 304);
  - version 4 – zinc flake coating;
  - trays with special version of thickness have no side perforation.

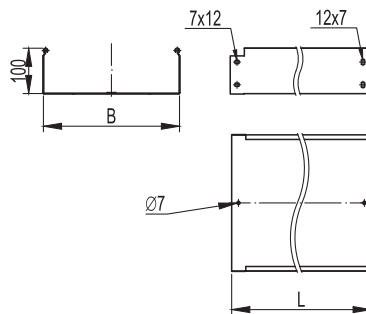
Steel thickness, mm	Height H, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
1,0	100	3000	100	3534110	3534110HDZ	3534110INOX	3534110ZL
			150	3534210	3534210HDZ	3534210INOX	3534210ZL
			200	3534310	3534310HDZ	3534310INOX	3534310ZL
			300	3534410	3534410HDZ	3534410INOX	3534410ZL
			400	35345	35345HDZ	35345INOX	35345ZL
			500	35346	35346HDZ	35346INOX	35346ZL
			600	35347	35347HDZ	35347INOX	35347ZL
1,2	100	3000	100	3534112	3534112HDZ	–	3534112ZL
			150	3534212	3534212HDZ	–	3534212ZL
			200	3534312	3534312HDZ	–	3534312ZL
			300	3534412	3534412HDZ	–	3534412ZL
			400	3534512	3534512HDZ	–	3534512ZL
			500	3534612	3534612HDZ	–	3534612ZL
			600	3534712	3534712HDZ	–	3524712ZL
1,5	100	3000	100	3534115	3534115HDZ	–	3534115ZL
			150	3534215	3534215HDZ	–	3534215ZL
			200	3534315	3534315HDZ	–	3534315ZL
			300	3534415	3534415HDZ	–	3534415ZL
			400	3534515	3534515HDZ	–	3534515ZL
			500	3534615	3534615HDZ	–	3534615ZL
			600				

Load diagrams



- Load test conditions:**
- for versions 1, 2 and 4;
  - tests according to GOST 52868, item 10.3.3;
  - the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
  - the maximum linear flexion does not exceed 1/100 of the span;
  - the maximum transversal flexion does not exceed 1/20 of the tray base width;
  - safety factor is 1,7 of declared load.

## Non-perforated trays, 100 mm high, special version of thickness



### Purpose:

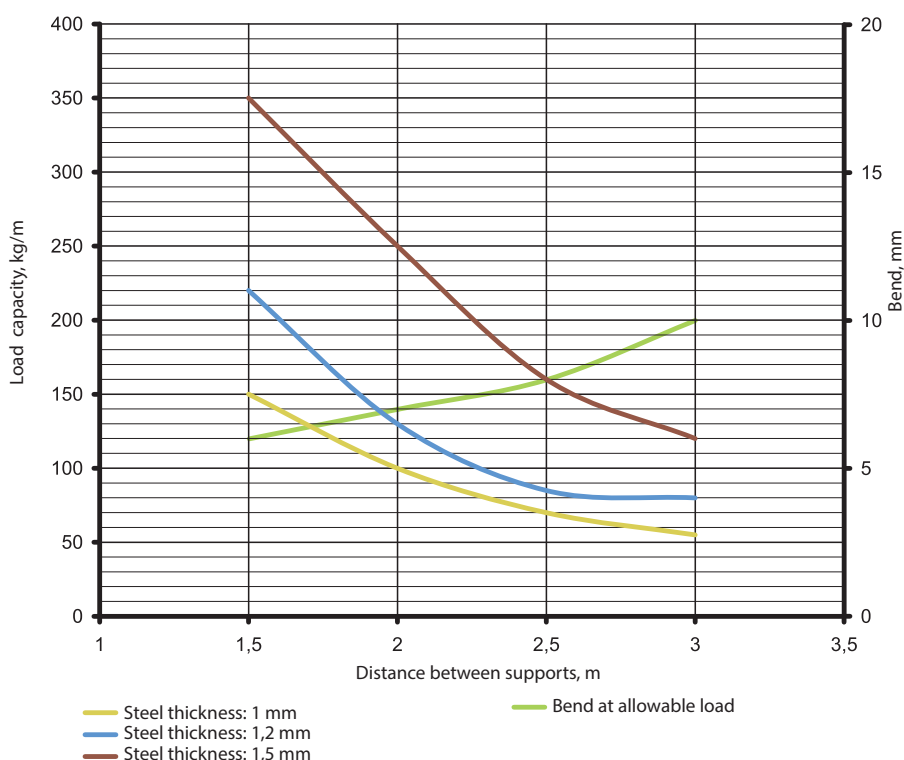
- construction of the cable lines for wires and cables installation.

### Characteristics:

- version 1 – Sendzimir galvanized steel;
- version 2 – hot-dip galvanized steel (HDZ);
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating;
- protection degree is up to IP44 by using special seals and metal plates (pg. 444–445).

Steel thickness, mm	Height H, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
1,0	100	3000	100	3510110	3510110HDZ	3510110INOX	3510110ZL
			150	3510210	3510210HDZ	3510210INOX	3510210ZL
			200	3510310	3510310HDZ	3510310INOX	3510310ZL
			300	3510410	3510410HDZ	3510410INOX	3510410ZL
			400	35105	35105HDZ	35105INOX	35105ZL
			500	35106	35106HDZ	35106INOX	35106ZL
			600	35107	35107HDZ	35107INOX	35107ZL
1,2	100	3000	100	3510112	3510112HDZ	–	3510112ZL
			150	3510212	3510212HDZ	–	3510212ZL
			200	3510312	3510312HDZ	–	3510312ZL
			300	3510412	3510412HDZ	–	3510412ZL
			400	3510512	3510512HDZ	–	3510512ZL
			500	3510612	3510612HDZ	–	3510612ZL
			600	3510712	3510712HDZ	–	3510712ZL
1,5	100	3000	100	3510115	3510115HDZ	–	3510115ZL
			150	3510215	3510215HDZ	–	3510215ZL
			200	3510315	3510315HDZ	–	3510315ZL
			300	3510415	3510415HDZ	–	3510415ZL
			400	3510515	3510515HDZ	–	3510515ZL
			500	3510615	3510615HDZ	–	3510615ZL

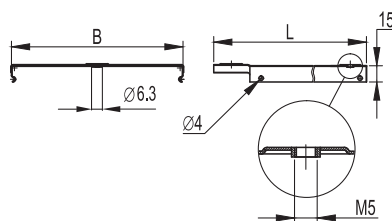
## Load diagrams



### Load test conditions:

- for versions 1, 2 and 4;
- tests according to GOST 52868, item 10.3.3;
- the distance from the joint place of the straight elements at the end passage to the support is 1/4-1/5 of the span length, the scheme of tests is according to TU 3449-013-47022248-2004;
- the maximum linear flexion does not exceed 1/100 of the span;
- the maximum transversal flexion does not exceed 1/20 of the tray base width;
- safety factor is 1,7 of declared load.

## Straight element cover

**Purpose:**

- protects cables from external effects.

**Distinctive Features:**

- installed on the tray by simple pressing.
- For grounding circuit round on the cover is used hexagon flange bolt M5x8 for ensuring electrical contact between covers M5x8 (code CM030508).

**Characteristics:**

- version 1 – Sendzimir galvanized steel
- version 2 – hot-dip galvanized steel (HDZ)
- version 3 – stainless steel (AISI 304);
- version 4 – zinc flake coating.

Length L, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Quantity in a pack (ver. 1), m	Code, version 1 (0,6 mm thick)	Code, version 2	Code, version 3 (0,8 mm thick)	Code, version 4
3000	50	0,4	36	35520	35520HDZ	35520INOX	35520ZL
	80	0,54	24	35521	35521HDZ	35521INOX	35521ZL
	100	0,63	24	35522	35522HDZ	35522INOX	35522ZL
	150	0,87	24	35523	35523HDZ	35523INOX	35523ZL
	200	1,11	24	35524	35524HDZ	35524INOX	35524ZL
	300	1,58	12	35525	35525HDZ	35525INOX	35525ZL
	400	2,05	12	35526	35526HDZ	35526INOX	35526ZL
	500	2,52	12	35527	35527HDZ	35527INOX	35527ZL
2000	600	2,98	12	35528	35528HDZ	35528INOX	35528ZL
	50	0,4	24	35510	35510HDZ	35510INOX	35510ZL
	80	0,54	16	35511	35511HDZ	35511INOX	35511ZL
	100	0,63	16	35512	35512HDZ	35512INOX	35512ZL
	150	0,87	16	35513	35513HDZ	35513INOX	35513ZL
	200	1,11	16	35514	35514HDZ	35514INOX	35514ZL
	300	1,58	8	35515	35515HDZ	35515INOX	35515ZL
	400	2,05	8	35516	35516HDZ	35516INOX	35516ZL
	500	2,52	8	35517	35517HDZ	35517INOX	35517ZL

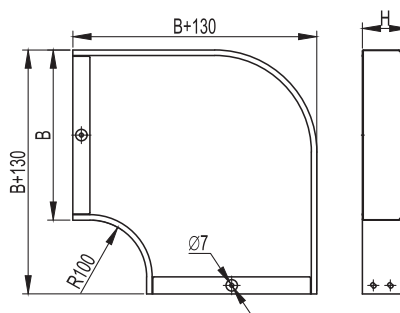
## Cover in special version of thickness

Steel thickness, mm	Length L, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
1,0	3000	50	3552010	3552010HDZ	3552010INOX	3552010ZL
		80	3552110	3552110HDZ	3552110INOX	3552110ZL
		100	3552210	3552210HDZ	3552210INOX	3552210ZL
		150	3552310	3552310HDZ	3552310INOX	3552310ZL
		200	3552410	3552410HDZ	3552410INOX	3552410ZL
		300	3552510	3552510HDZ	3552510INOX	3552510ZL
		400	3552610	3552610HDZ	3552610INOX	3552610ZL
		500	3552710	3552710HDZ	3552710INOX	3552710ZL
1,2	3000	600	3552810	3552810HDZ	3552810INOX	3552810ZL
		50	3552012	3552012HDZ	–	3552012ZL
		80	3552112	3552112HDZ	–	3552112ZL
		100	3552212	3552212HDZ	–	3552212ZL
		150	3552312	3552312HDZ	–	3552312ZL
		200	3552412	3552412HDZ	–	3552412ZL
		300	3552512	3552512HDZ	–	3552512ZL
		400	3552612	3552612HDZ	–	3552612ZL
1,5	3000	500	3552712	3552712HDZ	–	3552712ZL
		600	3552812	3552812HDZ	–	3552812ZL
		50	3552015	3552015HDZ	–	3552015ZL
		80	3552115	3552115HDZ	–	3552115ZL
		100	3552215	3552215HDZ	–	3552215ZL
		150	3552315	3552315HDZ	–	3552315ZL
		200	3552415	3552415HDZ	–	3552415ZL
		300	3552515	3552515HDZ	–	3552515ZL
		400	3552615	3552615HDZ	–	3552615ZL
		500	3552715	3552715HDZ	–	3552715ZL

## Sheet trays accessories

### Bends

#### CPO 90 Horizontal Bend


**Purpose:**

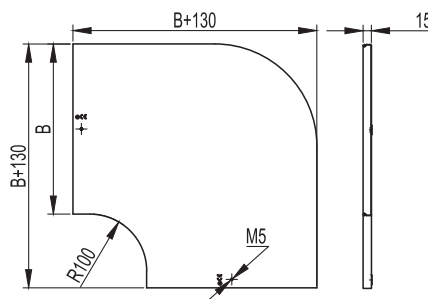
- arrangement of 90° cable line bend on the horizontal plane.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,400	36000	36000HDZ	36000INOX	36000ZL
	100	0,600	36002	36002HDZ	36002INOX	36002ZL
	150	0,800	36003	36003HDZ	36003INOX	36003ZL
	200	1,100	36004	36004HDZ	36004INOX	36004ZL
	300	1,800	36005	36005HDZ	36005INOX	36005ZL
	400	2,600	36006	36006HDZ	36006INOX	36006ZL
	500	3,600	36007	36007HDZ	36007INOX	36007ZL
80	600	4,600	36001	36001HDZ	36001INOX	36001ZL
	80	0,600	36021	36021HDZ	36021INOX	36021ZL
	100	0,660	36022	36022HDZ	36022INOX	36022ZL
	150	0,960	36023	36023HDZ	36023INOX	36023ZL
	200	1,300	36024	36024HDZ	36024INOX	36024ZL
	300	2,000	36025	36025HDZ	36025INOX	36025ZL
	400	3,000	36026	36026HDZ	36026INOX	36026ZL
100	500	4,000	36027	36027HDZ	36027INOX	36027ZL
	600	5,000	36028	36028HDZ	36028INOX	36028ZL
	100	0,700	36041	36041HDZ	36041INOX	36041ZL
	150	1,000	36042	36042HDZ	36042INOX	36042ZL
	200	1,370	36043	36043HDZ	36043INOX	36043ZL
	300	2,100	36044	36044HDZ	36044INOX	36044ZL
	400	3,150	36045	36045HDZ	36045INOX	36045ZL
	500	4,200	36046	36046HDZ	36046INOX	36046ZL
	600	5,250	36047	36047HDZ	36047INOX	36047ZL

#### Cover for horizontal bend CPO 90


**Purpose:**

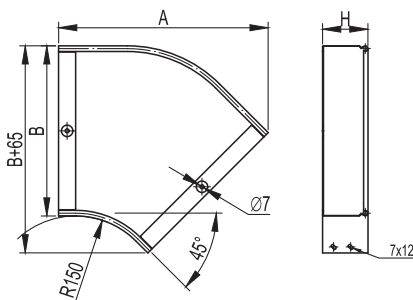
- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,150	38000	38000HDZ	38000INOX	38000ZL
80	0,260	38001	38001HDZ	38001INOX	38001ZL
100	0,350	38002	38002HDZ	38002INOX	38002ZL
150	0,550	38003	38003HDZ	38003INOX	38003ZL
200	0,700	38004	38004HDZ	38004INOX	38004ZL
300	1,400	38005	38005HDZ	38005INOX	38005ZL
400	2,100	38006	38006HDZ	38006INOX	38006ZL
500	3,100	38007	38007HDZ	38007INOX	38007ZL
600	4,100	38008	38008HDZ	38008INOX	38008ZL

## CPO 45 Horizontal bend

**Purpose:**

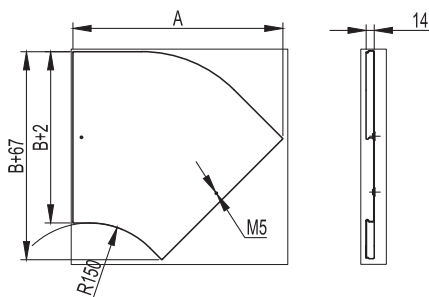
- arrangement of 45° cable line bend on the horizontal plane.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	A, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	190	0,250	36060	36060HDZ	36060INOX	36060ZL
	100	230	0,400	36062	36062HDZ	36062INOX	36062ZL
	150	270	0,500	36063	36063HDZ	36063INOX	36063ZL
	200	300	0,700	36064	36064HDZ	36064INOX	36064ZL
	300	370	1,000	36065	36065HDZ	36065INOX	36065ZL
	400	440	1,400	36066	36066HDZ	36066INOX	36066ZL
	500	510	1,900	36067	36067HDZ	36067INOX	36067ZL
80	600	580	2300	36068	36068HDZ	36068INOX	36068ZL
	80	220	0,440	36081	36081HDZ	36081INOX	36081ZL
	100	230	0,500	36082	36082HDZ	36082INOX	36082ZL
	150	270	0,660	36083	36083HDZ	36083INOX	36083ZL
	200	300	0,800	36084	36084HDZ	36084INOX	36084ZL
	300	370	1,200	36085	36085HDZ	36085INOX	36085ZL
	400	440	1,600	36086	36086HDZ	36086INOX	36086ZL
100	500	510	2,000	36087	36087HDZ	36087INOX	36087ZL
	600	580	2400	36088	36088HDZ	36088INOX	36088ZL
	100	230	0,530	36101	36101HDZ	36101INOX	36101ZL
	150	270	0,700	36102	36102HDZ	36102INOX	36102ZL
	200	300	0,850	36103	36103HDZ	36103INOX	36103ZL
	300	370	1,260	36104	36104HDZ	36104INOX	36104ZL
	400	440	1,700	36105	36105HDZ	36105INOX	36105ZL
	500	510	2,100	36106	36106HDZ	36106INOX	36106ZL
	600	580	2500	36107	36107HDZ	36107INOX	36107ZL

## Cover for horizontal bend CPO 45

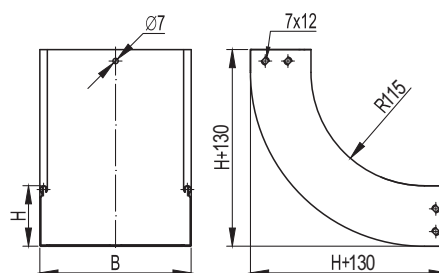
**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	A, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	190	0,100	38020	38020HDZ	38020INOX	38020ZL
80	220	0,200	38021	38021HDZ	38021INOX	38021ZL
100	230	0,240	38022	38022HDZ	38022INOX	38022ZL
150	270	0,360	38023	38023HDZ	38023INOX	38023ZL
200	300	0,500	38024	38024HDZ	38024INOX	38024ZL
300	370	0,800	38025	38025HDZ	38025INOX	38025ZL
400	440	1,200	38026	38026HDZ	38026INOX	38026ZL
500	510	1,600	38027	38027HDZ	38027INOX	38027ZL
600	580	2,000	38028	38028HDZ	38028INOX	38028ZL

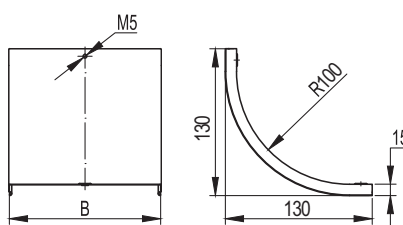
**CS 90 Inner vertical bend**

**Purpose:**

- arrangement of 90° upwards bend of cable line.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,35	36660	36660HDZ	36660INOX	36660ZL
	100	0,5	36662	36662HDZ	36662INOX	36662ZL
	150	0,6	36663	36663HDZ	36663INOX	36663ZL
	200	0,7	36664	36664HDZ	36664INOX	36664ZL
	300	0,9	36665	36665HDZ	36665INOX	36665ZL
	400	1,5	36666	36666HDZ	36666INOX	36666ZL
	500	1,8	36667	36667HDZ	36667INOX	36667ZL
80	600	2,1	36668	36668HDZ	36668INOX	36668ZL
	80	0,6	36681	36681HDZ	36681INOX	36681ZL
	100	0,66	36682	36682HDZ	36682INOX	36682ZL
	150	0,78	36683	36683HDZ	36683INOX	36683ZL
	200	0,9	36684	36684HDZ	36684INOX	36684ZL
	300	1,2	36685	36685HDZ	36685INOX	36685ZL
	400	1,4	36686	36686HDZ	36686INOX	36686ZL
100	500	1,8	36687	36687HDZ	36687INOX	36687ZL
	600	2,3	36688	36688HDZ	36688INOX	36688ZL
	100	0,7	36701	36701HDZ	36701INOX	36701ZL
	150	0,82	36702	36702HDZ	36702INOX	36702ZL
	200	0,95	36703	36703HDZ	36703INOX	36703ZL
	300	1,3	36704	36704HDZ	36704INOX	36704ZL
	400	1,5	36705	36705HDZ	36705INOX	36705ZL
	500	1,9	36706	36706HDZ	36706INOX	36706ZL
	600	2,3	36707	36707HDZ	36707INOX	36707ZL

**Cover for inner vertical bend CS 90**

**Purpose:**

- protects cables from external effects.

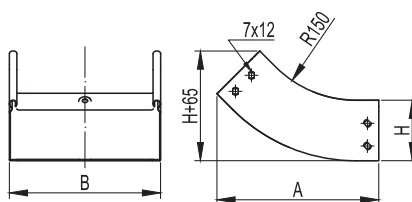
**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,1	38200	38200HDZ	38200INOX	38200ZL
80	0,2	38201	38201HDZ	38201INOX	38201ZL
100	0,25	38202	38202HDZ	38202INOX	38202ZL
150	0,3	38203	38203HDZ	38203INOX	38203ZL
200	0,4	38204	38204HDZ	38204INOX	38204ZL
300	0,6	38205	38205HDZ	38205INOX	38205ZL
400	0,7	38206	38206HDZ	38206INOX	38206ZL
500	0,8	38207	38207HDZ	38207INOX	38207ZL
600	0,9	38208	38208HDZ	38208INOX	38208ZL



### CS 45 Inner vertical bend


**Purpose:**

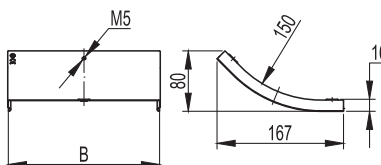
- arrangement of 45° upwards bend of cable line.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	A, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	195	0,25	36720	36720HDZ	36720INOX	36720ZL
	100	195	0,3	36722	36722HDZ	36722INOX	36722ZL
	150	195	0,4	36723	36723HDZ	36723INOX	36723ZL
	200	195	0,5	36724	36724HDZ	36724INOX	36724ZL
	300	195	0,7	36725	36725HDZ	36725INOX	36725ZL
	400	195	0,8	36726	36726HDZ	36726INOX	36726ZL
	500	195	1	36727	36727HDZ	36727INOX	36727ZL
	600	195	1,2	36728	36728HDZ	36728INOX	36728ZL
80	80	210	0,45	36741	36741HDZ	36741INOX	36741ZL
	100	210	0,5	36742	36742HDZ	36742INOX	36742ZL
	150	210	0,6	36743	36743HDZ	36743INOX	36743ZL
	200	210	0,7	36744	36744HDZ	36744INOX	36744ZL
	300	210	0,85	36745	36745HDZ	36745INOX	36745ZL
	400	210	1,1	36746	36746HDZ	36746INOX	36746ZL
	500	210	1,3	36747	36747HDZ	36747INOX	36747ZL
	600	210	1,5	36748	36748HDZ	36748INOX	36748ZL
100	100	230	0,53	36761	36761HDZ	36761INOX	36761ZL
	150	230	0,63	36762	36762HDZ	36762INOX	36762ZL
	200	230	0,74	36763	36763HDZ	36763INOX	36763ZL
	300	230	0,89	36764	36764HDZ	36764INOX	36764ZL
	400	230	1,15	36765	36765HDZ	36765INOX	36765ZL
	500	230	1,37	36766	36766HDZ	36766INOX	36766ZL
	600	230	1,59	36767	36767HDZ	36767INOX	36767ZL

### Cover for inner vertical bend CS 45


**Purpose:**

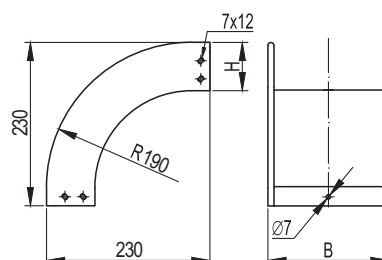
- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,08	38220	38220HDZ	38220INOX	38220ZL
80	0,18	38221	38221HDZ	38221INOX	38221ZL
100	0,2	38222	38222HDZ	38222INOX	38222ZL
150	0,3	38223	38223HDZ	38223INOX	38223ZL
200	0,35	38224	38224HDZ	38224INOX	38224ZL
300	0,5	38225	38225HDZ	38225INOX	38225ZL
400	0,6	38226	38226HDZ	38226INOX	38226ZL
500	0,7	38227	38227HDZ	38227INOX	38227ZL
600	0,8	38228	38228HDZ	38228INOX	38228ZL

## CD 90 External vertical bend


**Purpose:**

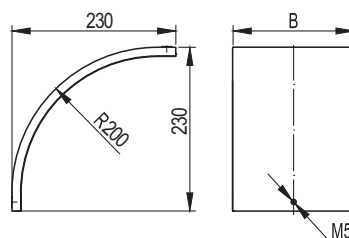
- arrangement of 90° downwards bend of cable line.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 3
50	50	0,45	36780	36780HDZ	36780INOX	36780ZL
	100	0,6	36782	36782HDZ	36782INOX	36782ZL
	150	0,7	36783	36783HDZ	36783INOX	36783ZL
	200	0,8	36784	36784HDZ	36784INOX	36784ZL
	300	1	36785	36785HDZ	36785INOX	36785ZL
	400	1,2	36786	36786HDZ	36786INOX	36786ZL
	500	1,4	36787	36787HDZ	36787INOX	36787ZL
	600	1,6	36788	36788HDZ	36788INOX	36788ZL
80	80	0,6	36801	36801HDZ	36801INOX	36801ZL
	100	0,65	36802	36802HDZ	36802INOX	36802ZL
	150	0,75	36803	36803HDZ	36803INOX	36803ZL
	200	0,85	36804	36804HDZ	36804INOX	36804ZL
	300	1,2	36805	36805HDZ	36805INOX	36805ZL
	400	1,3	36806	36806HDZ	36806INOX	36806ZL
	500	1,4	36807	36807HDZ	36807INOX	36807ZL
	600	1,6	36808	36808HDZ	36808INOX	36808ZL
100	100	0,68	36821	36821HDZ	36821INOX	36821ZL
	150	0,79	36822	36822HDZ	36822INOX	36822ZL
	200	0,89	36823	36823HDZ	36823INOX	36823ZL
	300	1,26	36824	36824HDZ	36824INOX	36824ZL
	400	1,37	36825	36825HDZ	36825INOX	36825ZL
	500	1,47	36826	36826HDZ	36826INOX	36826ZL
	600	1,57	36827	36827HDZ	36827INOX	36827ZL

## Cover for external vertical bend CD 90

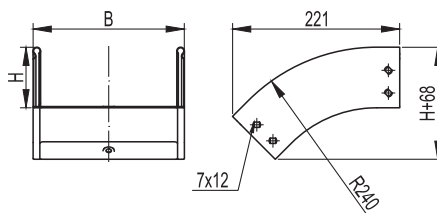

**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,15	38240	38240HDZ	38240INOX	38240ZL
80	0,35	38241	38241HDZ	38241INOX	38241ZL
100	0,4	38242	38242HDZ	38242INOX	38242ZL
150	0,55	38243	38243HDZ	38243INOX	38243ZL
200	0,7	38244	38244HDZ	38244INOX	38244ZL
300	1	38245	38245HDZ	38245INOX	38245ZL
400	1,2	38246	38246HDZ	38246INOX	38246ZL
500	1,4	38247	38247HDZ	38247INOX	38247ZL
600	1,6	38248	38248HDZ	38248INOX	38248ZL

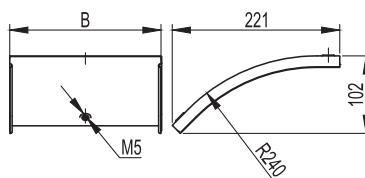
**CD 45 External vertical bend**

**Purpose:**

- arrangement of 45° downwards bend of cable line.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,3	36840	36840HDZ	36840INOX	36840ZL
	100	0,4	36842	36842HDZ	36842INOX	36842ZL
	150	0,5	36843	36843HDZ	36843INOX	36843ZL
	200	0,6	36844	36844HDZ	36844INOX	36844ZL
	300	0,7	36845	36845HDZ	36845INOX	36845ZL
	400	0,8	36846	36846HDZ	36846INOX	36846ZL
	500	1	36847	36847HDZ	36847INOX	36847ZL
	600	1,2	36848	36848HDZ	36848INOX	36848ZL
80	80	0,45	36861	36861HDZ	36861INOX	36861ZL
	100	0,5	36862	36862HDZ	36862INOX	36862ZL
	150	0,55	36863	36863HDZ	36863INOX	36863ZL
	200	0,62	36864	36864HDZ	36864INOX	36864ZL
	300	0,75	36865	36865HDZ	36865INOX	36865ZL
	400	0,9	36866	36866HDZ	36866INOX	36866ZL
	500	1	36867	36867HDZ	36867INOX	36867ZL
	600	1,1	36868	36868HDZ	36868INOX	36868ZL
100	100	0,53	36881	36881HDZ	36881INOX	36881ZL
	150	0,58	36882	36882HDZ	36882INOX	36882ZL
	200	0,65	36883	36883HDZ	36883INOX	36883ZL
	300	0,8	36884	36884HDZ	36884INOX	36884ZL
	400	0,95	36885	36885HDZ	36885INOX	36885ZL
	500	1,07	36886	36886HDZ	36886INOX	36886ZL
	600	1,19	36887	36887HDZ	36887INOX	36887ZL

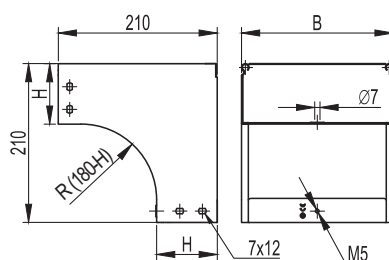
**Cover for external vertical bend CD 45**

**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,1	38260	38260HDZ	38260INOX	38260ZL
80	0,26	38261	38261HDZ	38261INOX	38261ZL
100	0,3	38262	38262HDZ	38262INOX	38262ZL
150	0,4	38263	38263HDZ	38263INOX	38263ZL
200	0,5	38264	38264HDZ	38264INOX	38264ZL
300	0,65	38265	38265HDZ	38265INOX	38265ZL
400	0,8	38266	38266HDZ	38266INOX	38266ZL
500	1,00	38267	38267HDZ	38267INOX	38267ZL
600	1,2	38268	38268HDZ	38268INOX	38268ZL

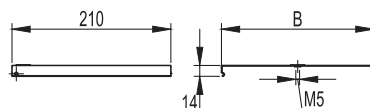
**CDV 90 External vertical bend**

**Purpose:**

- 90° downwards bend of cable line providing a rotation of exposed part of the tray by 180° about its axis.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,83	37572	37572HDZ	37572INOX	37572ZL
	150	1,03	37573	37573HDZ	37573INOX	37573ZL
	200	1,22	37574	37574HDZ	37574INOX	37574ZL
	300	1,6	37575	37575HDZ	37575INOX	37575ZL
	400	1,99	37576	37576HDZ	37576INOX	37576ZL
	500	2,38	37577	37577HDZ	37577INOX	37577ZL
80	600	2,77	37578	37578HDZ	37578INOX	37578ZL
	80	0,79	37371	37371HDZ	37371INOX	37371ZL
	100	0,86	37372	37372HDZ	37372INOX	37372ZL
	150	1,03	37373	37373HDZ	37373INOX	37373ZL
	200	1,2	37374	37374HDZ	37374INOX	37374ZL
	300	1,54	37375	37375HDZ	37375INOX	37375ZL
100	400	1,74	37376	37376HDZ	37376INOX	37376ZL
	500	2,05	37377	37377HDZ	37377INOX	37377ZL
	600	2,36	37370	37370HDZ	37370INOX	37370ZL
	100	0,93	37472	37472HDZ	37472INOX	37472ZL
	150	1,12	37473	37473HDZ	37473INOX	37473ZL
	200	1,26	37474	37474HDZ	37474INOX	37474ZL
	300	1,59	37475	37475HDZ	37475INOX	37475ZL
	400	1,99	37476	37476HDZ	37476INOX	37476ZL
	500	2,34	37477	37477HDZ	37477INOX	37477ZL
	600	2,69	37478	37478HDZ	37478INOX	37478ZL

**Cover for external vertical bend CDV 90**

**Purpose:**

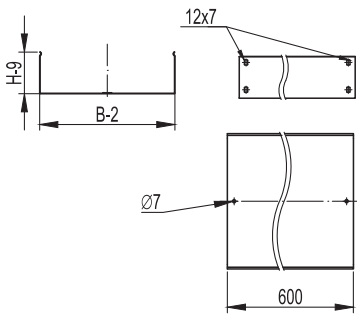
- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,8 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	0,15	38281	38281HDZ	38281INOX	38281ZL
100	0,18	38341	38341HDZ	38341INOX	38341ZL
150	0,24	38342	38342HDZ	38342INOX	38342ZL
200	0,31	38343	38343HDZ	38343INOX	38343ZL
300	0,44	38344	38344HDZ	38344INOX	38344ZL
400	0,61	38345	38345HDZ	38345INOX	38345ZL
500	0,76	38346	38346HDZ	38346INOX	38346ZL
600	0,91	38347	38347HDZ	38347INOX	38347ZL

Telescopic extension



**Purpose:**

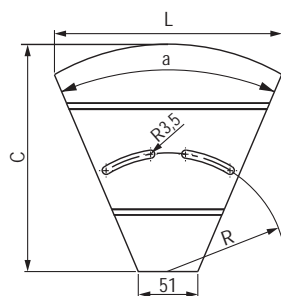
- compensation of the linear changes of the tray length at the temperature changes. The telescopic insertions are situated at the distance enough for the compensation of the linear changes of the tray length. It is possible to define this distance making temperature calculation.

**Characteristics:**

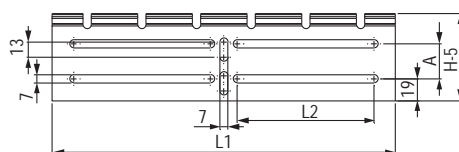
- the length of the telescopic insertion for all typical sizes is 600 mm.

Height H, mm	Width, B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,65	35262600	35262600HDZ	35262600INOX	35262600ZL
	150	0,79	35263600	35263600HDZ	35263600INOX	35263600ZL
	200	1,07	35264600	35264600HDZ	35264600INOX	35264600ZL
	300	1,39	35265600	35265600HDZ	35265600INOX	35265600ZL
	400	2,13	35266600	35266600HDZ	35266600INOX	35266600ZL
	500	2,54	35267600	35267600HDZ	35267600INOX	35267600ZL
80	80	0,76	35301600	35301600HDZ	35301600INOX	35301600ZL
	100	0,82	35302600	35302600HDZ	35302600INOX	35302600ZL
	150	0,96	35303600	35303600HDZ	35303600INOX	35303600ZL
	200	1,26	35304600	35304600HDZ	35304600INOX	35304600ZL
	300	1,59	35305600	35305600HDZ	35305600INOX	35305600ZL
	400	2,37	35306600	35306600HDZ	35306600INOX	35306600ZL
	500	2,78	35307600	35307600HDZ	35307600INOX	35307600ZL
100	100	0,93	35341600	35341600HDZ	35341600INOX	35341600ZL
	150	1,08	35342600	35342600HDZ	35342600INOX	35342600ZL
	200	1,39	35343600	35343600HDZ	35343600INOX	35343600ZL
	300	1,72	35344600	35344600HDZ	35344600INOX	35344600ZL
	400	2,48	35345600	35345600HDZ	35345600INOX	35345600ZL
	500	2,94	35346600	35346600HDZ	35346600INOX	35346600ZL

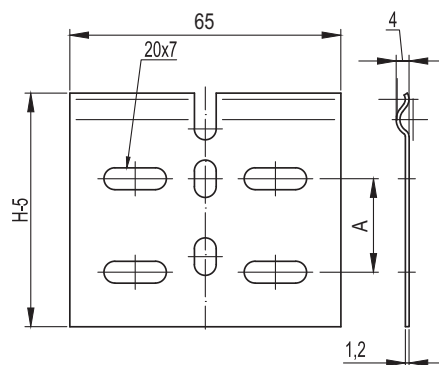
## Variable horizontal bend CPO



Base drawing



Pin-link drawing



Roller link drawing

### Purpose:

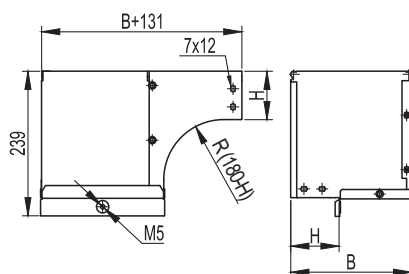
- cable line bend from 0 to 45° on the horizontal plane.

### Characteristics:

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	L, mm	C, mm	a, °	L1, mm	L2, mm	A, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,15	126	97	55	140	38	0	36008	36008HDZL	36008INOX	36008HDZL
	150	0,2	165	147	51	180	63		36009	36009HDZL	36009INOX	36009HDZL
	200	0,27	196	197	46	215	77,5		36010	36010HDZL	36010INOX	36010HDZL
	300	0,44	281	297	48	295	117,5		36011	36011HDZL	36011INOX	36011HDZL
80	80	0,14	107	77	55	120	28	30	36012	36012HDZL	36012INOX	36012HDZL
	100	0,16	126	97	55	140	38		36013	36013HDZL	36013INOX	36013HDZL
	150	0,22	165	147	51	180	63		36014	36014HDZL	36014INOX	36014HDZL
	200	0,3	196	197	46	215	77,5		36015	36015HDZL	36015INOX	36015HDZL
	300	0,48	281	297	48	295	117,5		36016	36016HDZL	36016INOX	36016HDZL
100	100	0,17	126	97	55	140	38	50	36017	36017HDZL	36017INOX	36017HDZL
	150	0,23	165	147	51	180	63		36018	36018HDZL	36018INOX	36018HDZL
	200	0,31	196	197	46	215	77,5		36019	36019HDZL	36019INOX	36019HDZL
	300	0,51	281	297	48	295	117,5		36020	36020HDZL	36020INOX	36020HDZL



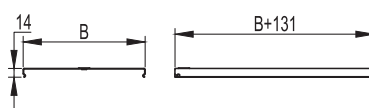
**CDSD 90 External vertical bend**

**Purpose:**

- cable line bend downwards by 90° providing a rotation of exposed part of the tray by 90° about its axis.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	1,128	37502	37502HDZ	37502INOX	37502ZL
	150	1,609	37503	37503HDZ	37503INOX	37503ZL
	200	2,129	37504	37504HDZ	37504INOX	37504ZL
	300	3,289	37505	37505HDZ	37505INOX	37505ZL
	400	4,606	37506	37506HDZ	37506INOX	37506ZL
	500	6,079	37507	37507HDZ	37507INOX	37507ZL
	600	7,552	37508	37508HDZ	37508INOX	37508ZL
80	80	0,64	37001	37001HDZ	37001INOX	37001ZL
	100	1	37002	37002HDZ	37002INOX	37002ZL
	150	1,45	37003	37003HDZ	37003INOX	37003ZL
	200	1,91	37004	37004HDZ	37004INOX	37004ZL
	300	2,98	37005	37005HDZ	37005INOX	37005ZL
	400	4,16	37006	37006HDZ	37006INOX	37006ZL
	500	5,52	37007	37007HDZ	37007INOX	37007ZL
100	600	6,88	37008	37008HDZ	37008INOX	37008ZL
	100	0,962	37012	37012HDZ	37012INOX	37012ZL
	150	1,434	37013	37013HDZ	37013INOX	37013ZL
	200	1,905	37014	37014HDZ	37014INOX	37014ZL
	300	2,963	37015	37015HDZ	37015INOX	37015ZL
	400	4,18	37016	37016HDZ	37016INOX	37016ZL
	500	5,552	37017	37017HDZ	37017INOX	37017ZL
	600	6,924	37018	37018HDZ	37018INOX	37018ZL

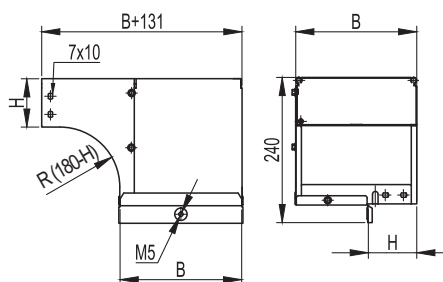
**Cover for external vertical bend CDSD 90**

**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,8 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	0,15	38281	38281HDZ	38281INOX	38281ZL
100	0,17	38282	38282HDZ	38282INOX	38282ZL
150	0,32	38283	38283HDZ	38283INOX	38283ZL
200	0,49	38284	38284HDZ	38284INOX	38284ZL
300	0,92	38285	38285HDZ	38285INOX	38285ZL
400	1,48	38286	38286HDZ	38286INOX	38286ZL
500	2,18	38287	38287HDZ	38287INOX	38287ZL
600	2,88	38288	38288HDZ	38288INOX	38288ZL

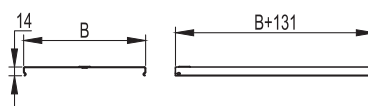
**CDSS 90 External vertical bend**

**Purpose:**

- cable line bend downwards by 90° providing a rotation of exposed part of the tray by 90° about its axis.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	1,128	37651	37651HDZ	37651INOX	37651ZL
	150	1,609	37652	37652HDZ	37652INOX	37652ZL
	200	2,129	37653	37653HDZ	37653INOX	37653ZL
	300	3,289	37654	37654HDZ	37654INOX	37654ZL
	400	4,606	37655	37655HDZ	37655INOX	37655ZL
	500	6,079	37656	37656HDZ	37656INOX	37656ZL
	600	7,552	37657	37657HDZ	37657INOX	37657ZL
80	80	0,64	37021	37021HDZ	37021INOX	37021ZL
	100	1	37022	37022HDZ	37022INOX	37022ZL
	150	1,45	37023	37023HDZ	37023INOX	37023ZL
	200	1,91	37024	37024HDZ	37024INOX	37024ZL
	300	2,98	37025	37025HDZ	37025INOX	37025ZL
	400	4,16	37026	37026HDZ	37026INOX	37026ZL
	500	5,52	37027	37027HDZ	37027INOX	37027ZL
100	600	6,88	37028	37028HDZ	37028INOX	37028ZL
	100	0,962	37122	37122HDZ	37122INOX	37122ZL
	150	1,434	37123	37123HDZ	37123INOX	37123ZL
	200	1,905	37124	37124HDZ	37124INOX	37124ZL
	300	2,963	37125	37125HDZ	37125INOX	37125ZL
	400	4,18	37126	37126HDZ	37126INOX	37126ZL
	500	5,552	37127	37127HDZ	37127INOX	37127ZL
	600	6,924	37128	37128HDZ	37128INOX	37128ZL

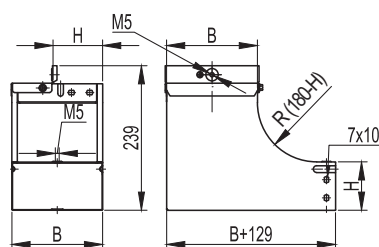
**Cover for external vertical bend CDSS 90**

**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,8 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	0,15	38281	38281HDZ	38281INOX	38281ZL
100	0,17	38282	38282HDZ	38282INOX	38282ZL
150	0,32	38283	38283HDZ	38283INOX	38283ZL
200	0,49	38284	38284HDZ	38284INOX	38284ZL
300	0,92	38285	38285HDZ	38285INOX	38285ZL
400	1,48	38286	38286HDZ	38286INOX	38286ZL
500	2,18	38287	38287HDZ	38287INOX	38287ZL
600	2,78	38288	38288HDZ	38288INOX	38288ZL

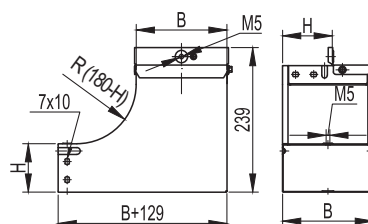
**CSSD 90 Inner vertical bend**

**Purpose:**

- cable line bend upwards by 90° providing a rotation of exposed part of the tray by 90° about its axis.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	1,21	37661	37661HDZ	37661INOX	37661ZL
	150	1,74	37662	37662HDZ	37662INOX	37662ZL
	200	2,36	37663	37663HDZ	37663INOX	37663ZL
	300	3,81	37664	37664HDZ	37664INOX	37664ZL
	400	5,62	37665	37665HDZ	37665INOX	37665ZL
	500	7,72	37666	37666HDZ	37666INOX	37666ZL
	600	10,15	37667	37667HDZ	37667INOX	37667ZL
80	80	0,9	37041	37041HDZ	37041INOX	37041ZL
	100	1,120	37042	37042HDZ	37042INOX	37042ZL
	150	1,700	37043	37043HDZ	37043INOX	37043ZL
	200	2,300	37044	37044HDZ	37044INOX	37044ZL
	300	3,69	37045	37045HDZ	37045INOX	37045ZL
	400	5,52	37046	37046HDZ	37046INOX	37046ZL
	500	7,61	37047	37047HDZ	37047INOX	37047ZL
100	600	9,89	37048	37048HDZ	37048INOX	37048ZL
	100	1,1	37142	37142HDZ	37142INOX	37142ZL
	150	1,62	37143	37143HDZ	37143INOX	37143ZL
	200	2,36	37144	37144HDZ	37144INOX	37144ZL
	300	3,87	37145	37145HDZ	37145INOX	37145ZL
	400	6,00	37146	37146HDZ	37146INOX	37146ZL
	500	8,18	37147	37147HDZ	37147INOX	37147ZL
	600	10,46	37148	37148HDZ	37148INOX	37148ZL

**CSSS 90 Inner vertical bend**

**Purpose:**

- cable line bend upwards by 90° providing a rotation of exposed part of the tray by 90° about its axis.

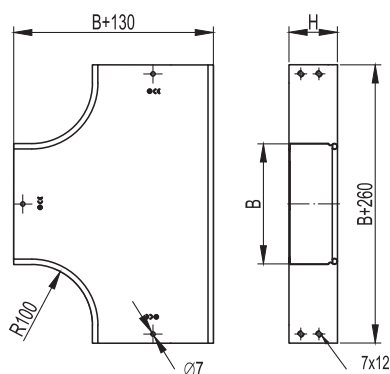
**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	1,21	37592	37592HDZ	37592INOX	37592ZL
	150	1,74	37593	37593HDZ	37593INOX	37593ZL
	200	2,36	37594	37594HDZ	37594INOX	37594ZL
	300	3,81	37595	37595HDZ	37595INOX	37595ZL
	400	5,62	37596	37596HDZ	37596INOX	37596ZL
	500	7,72	37597	37597HDZ	37597INOX	37597ZL
	600	10,15	37598	37598HDZ	37598INOX	37598ZL
80	80	0,9	37061	37061HDZ	37061INOX	37061ZL
	100	1,120	37062	37062HDZ	37062INOX	37062ZL
	150	1,700	37063	37063HDZ	37063INOX	37063ZL
	200	2,300	37064	37064HDZ	37064INOX	37064ZL
	300	3,69	37065	37065HDZ	37065INOX	37065ZL
	400	5,52	37066	37066HDZ	37066INOX	37066ZL
	500	7,61	37067	37067HDZ	37067INOX	37067ZL
100	600	9,89	37068	37068HDZ	37068INOX	37068ZL
	100	1,1	37072	37072HDZ	37072INOX	37072ZL
	150	1,62	37073	37073HDZ	37073INOX	37073ZL
	200	2,36	37074	37074HDZ	37074INOX	37074ZL
	300	3,87	37075	37075HDZ	37075INOX	37075ZL
	400	6,00	37076	37076HDZ	37076INOX	37076ZL
	500	8,18	37077	37077HDZ	37077INOX	37077ZL
	600	10,46	37078	37078HDZ	37078INOX	37078ZL

## Branches

### Horizontal DPT T-branch


**Purpose:**

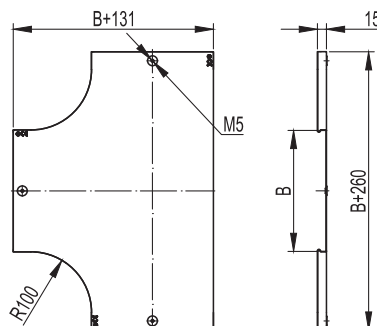
- arrangement of T-type line branch on the horizontal surface.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 3
50	50	0,6	36120	36120HDZ	36120INOX	36120ZL
	100	0,8	36122	36122HDZ	36122INOX	36122ZL
	150	1,1	36123	36123HDZ	36123INOX	36123ZL
	200	1,7	36124	36124HDZ	36124INOX	36124ZL
	300	2,1	36125	36125HDZ	36125INOX	36125ZL
	400	3,1	36126	36126HDZ	36126INOX	36126ZL
	500	4,2	36127	36127HDZ	36127INOX	36127ZL
80	600	5,3	36128	36128HDZ	36128INOX	36128ZL
	80	0,9	36141	36141HDZ	36141INOX	36141ZL
	100	0,96	36142	36142HDZ	36142INOX	36142ZL
	150	1,3	36143	36143HDZ	36143INOX	36143ZL
	200	1,62	36144	36144HDZ	36144INOX	36144ZL
	300	2,3	36145	36145HDZ	36145INOX	36145ZL
	400	3,4	36146	36146HDZ	36146INOX	36146ZL
100	500	4,4	36147	36147HDZ	36147INOX	36147ZL
	600	5,5	36148	36148HDZ	36148INOX	36148ZL
	100	1	36161	36161HDZ	36161INOX	36161ZL
	150	1,37	36162	36162HDZ	36162INOX	36162ZL
	200	1,7	36163	36163HDZ	36163INOX	36163ZL
	300	2,4	36164	36164HDZ	36164INOX	36164ZL
	400	3,6	36165	36165HDZ	36165INOX	36165ZL
	500	4,62	36166	36166HDZ	36166INOX	36166ZL
	600	5,7	36167	36167HDZ	36167INOX	36167ZL

### Cover for horizontal DPT T-branch

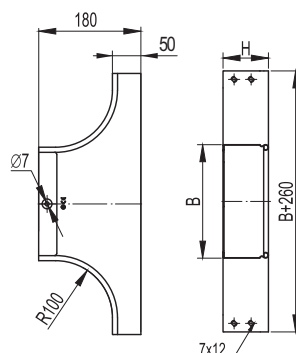

**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,25	38040	38040HDZ	38040INOX	38040ZL
80	0,45	38041	38041HDZ	38041INOX	38041ZL
100	0,5	38042	38042HDZ	38042INOX	38042ZL
150	0,7	38043	38043HDZ	38043INOX	38043ZL
200	1	38044	38044HDZ	38044INOX	38044ZL
300	1,8	38045	38045HDZ	38045INOX	38045ZL
400	2,6	38046	38046HDZ	38046INOX	38046ZL
500	3,6	38047	38047HDZ	38047INOX	38047ZL
600	4,6	38048	38048HDZ	38048INOX	38048ZL

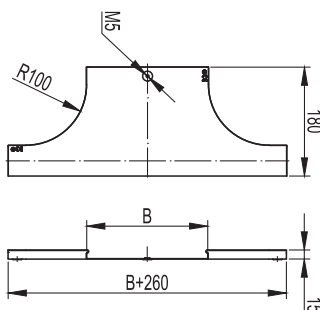
**DL T-branch**

**Purpose:**

- arrangement of T-type and X-type line branch on the horizontal plane, or T-type downwards branch without cover.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,39	36233	36233HDZ	36233INOX	36233ZL
	100	0,5	36235	36235HDZ	36235INOX	36235ZL
	150	0,56	36236	36236HDZ	36236INOX	36236ZL
	200	0,64	36237	36237HDZ	36237INOX	36237ZL
	300	0,76	36238	36238HDZ	36238INOX	36238ZL
	400	0,91	36239	36239HDZ	36239INOX	36239ZL
	500	1,06	36240	36240HDZ	36240INOX	36240ZL
	600	1,22	36241	36241HDZ	36241INOX	36241ZL
80	80	0,57	36249	36249HDZ	36249INOX	36249ZL
	100	0,6	36250	36250HDZ	36250INOX	36250ZL
	150	0,66	36251	36251HDZ	36251INOX	36251ZL
	200	0,74	36252	36252HDZ	36252INOX	36252ZL
	300	0,86	36253	36253HDZ	36253INOX	36253ZL
	400	1,01	36254	36254HDZ	36254INOX	36254ZL
	500	1,16	36255	36255HDZ	36255INOX	36255ZL
	600	1,32	36256	36256HDZ	36256INOX	36256ZL
100	100	0,67	36263	36263HDZ	36263INOX	36263ZL
	150	0,73	36264	36264HDZ	36264INOX	36264ZL
	200	0,81	36265	36265HDZ	36265INOX	36265ZL
	300	0,93	36266	36266HDZ	36266INOX	36266ZL
	400	1,08	36267	36267HDZ	36267INOX	36267ZL
	500	1,23	36268	36268HDZ	36268INOX	36268ZL
	600	1,39	36269	36269HDZ	36269INOX	36269ZL

**Cover for DL T-branch**

**Purpose:**

- protects cables from external effects.

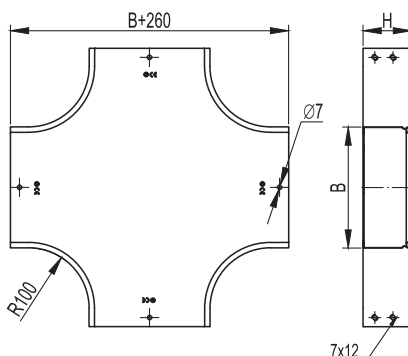
**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,19	38361	38361HDZ	38361INOX	38361ZL
80	0,23	38362	38362HDZ	38362INOX	38362ZL
100	0,26	38363	38363HDZ	38363INOX	38363ZL
150	0,31	38364	38364HDZ	38364INOX	38364ZL
200	0,37	38365	38365HDZ	38365INOX	38365ZL
300	0,48	38366	38366HDZ	38366INOX	38366ZL
400	0,59	38367	38367HDZ	38367INOX	38367ZL
500	0,7	38368	38368HDZ	38368INOX	38368ZL
600	0,81	38369	38369HDZ	38369INOX	38369ZL



## Horizontal DPX cross branch

**Purpose:**

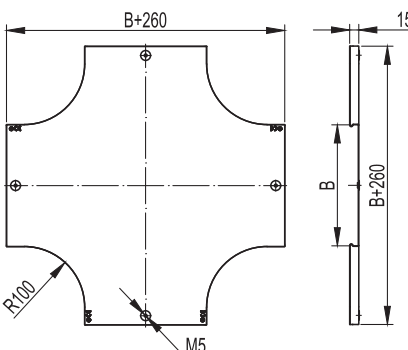
- arrangement of X-type line branch on the horizontal plane.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,75	36180	36180HDZ	36180INOX	36180ZL
	100	1	36182	36182HDZ	36182INOX	36182ZL
	150	1,3	36183	36183HDZ	36183INOX	36183ZL
	200	1,7	36184	36184HDZ	36184INOX	36184ZL
	300	2,4	36185	36185HDZ	36185INOX	36185ZL
	400	3,4	36186	36186HDZ	36186INOX	36186ZL
	500	4,3	36187	36187HDZ	36187INOX	36187ZL
80	600	5,4	36188	36188HDZ	36188INOX	36188ZL
	80	1	36201	36201HDZ	36201INOX	36201ZL
	100	1,1	36202	36202HDZ	36202INOX	36202ZL
	150	1,4	36203	36203HDZ	36203INOX	36203ZL
	200	1,8	36204	36204HDZ	36204INOX	36204ZL
	300	2,6	36205	36205HDZ	36205INOX	36205ZL
	400	3,8	36206	36206HDZ	36206INOX	36206ZL
100	500	4,7	36207	36207HDZ	36207INOX	36207ZL
	600	5,7	36208	36208HDZ	36208INOX	36208ZL
	100	1,16	36221	36221HDZ	36221INOX	36221ZL
	150	1,47	36222	36222HDZ	36222INOX	36222ZL
	200	1,9	36223	36223HDZ	36223INOX	36223ZL
	300	2,75	36224	36224HDZ	36224INOX	36224ZL
	400	4	36225	36225HDZ	36225INOX	36225ZL
	500	4,95	36226	36226HDZ	36226INOX	36226ZL
	600	6,05	36227	36227HDZ	36227INOX	36227ZL

## Cover for horizontal DPX cross branch

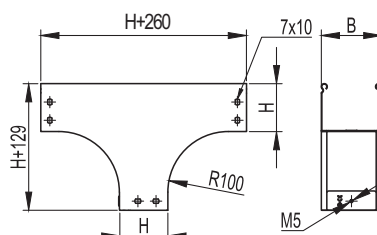
**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,3	38060	38060HDZ	38060INOX	38060ZL
80	0,55	38061	38061HDZ	38061INOX	38061ZL
100	0,6	38062	38062HDZ	38062INOX	38062ZL
150	0,9	38063	38063HDZ	38063INOX	38063ZL
200	1,3	38064	38064HDZ	38064INOX	38064ZL
300	2,1	38065	38065HDZ	38065INOX	38065ZL
400	3	38066	38066HDZ	38066INOX	38066ZL
500	4,2	38067	38067HDZ	38067INOX	38067ZL
600	4,5	38068	38068HDZ	38068INOX	38068ZL

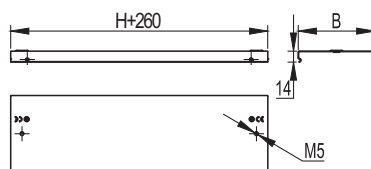
**Vertical TD T-branch**

**Purpose:**

- arrangement of T-type line branch downwards.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,685	37519	37519HDZ	37519INOX	37519ZL
	150	0,855	37513	37513HDZ	37513INOX	37513ZL
	200	0,8	37514	37514HDZ	37514INOX	37514ZL
	300	1,025	37515	37515HDZ	37515INOX	37515ZL
	400	1,385	37516	37516HDZ	37516INOX	37516ZL
	500	2,045	37517	37517HDZ	37517INOX	37517ZL
	600	2,505	37518	37518HDZ	37518INOX	37518ZL
80	80	1	37101	37101HDZ	37101INOX	37101ZL
	100	1,06	37102	37102HDZ	37102INOX	37102ZL
	150	1,23	37103	37103HDZ	37103INOX	37103ZL
	200	1,4	37104	37104HDZ	37104INOX	37104ZL
	300	1,76	37105	37105HDZ	37105INOX	37105ZL
	400	2,06	37106	37106HDZ	37106INOX	37106ZL
	500	2,42	37107	37107HDZ	37107INOX	37107ZL
100	600	2,85	37108	37108HDZ	37108INOX	37108ZL
	100	1,35	37112	37112HDZ	37112INOX	37112ZL
	150	1,25	37113	37113HDZ	37113INOX	37113ZL
	200	1,5	37114	37114HDZ	37114INOX	37114ZL
	300	1,75	37115	37115HDZ	37115INOX	37115ZL
	400	2	37116	37116HDZ	37116INOX	37116ZL
	500	2,25	37117	37117HDZ	37117INOX	37117ZL
	600	2,6	37118	37118HDZ	37118INOX	37118ZL

**Cover for vertical TD T-branch**

**Purpose:**

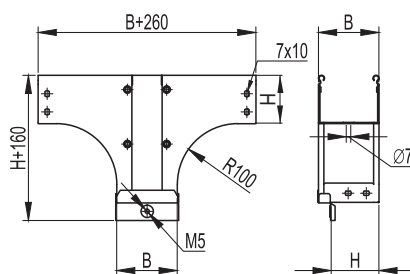
- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	0,245	38301	38301HDZ	38301INOX	38301ZL
100	0,290	38302	38302HDZ	38302INOX	38302ZL
150	0,400	38303	38303HDZ	38303INOX	38303ZL
200	0,510	38304	38304HDZ	38304INOX	38304ZL
300	0,720	38305	38305HDZ	38305INOX	38305ZL
400	0,940	38306	38306HDZ	38306INOX	38306ZL
500	1,160	38307	38307HDZ	38307INOX	38307ZL
600	1,38	38309	38309HDZ	38309INOX	38309ZL

## Vertical side TDS T-branch

**Purpose:**

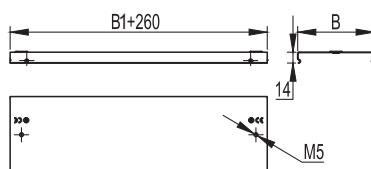
- arrangement of T-type line branch downwards by 90° providing a rotation of exposed part of the tray by 90° about its axis.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,73	37582	37582HDZ	37582INOX	37582ZL
	150	1,11	37583	37583HDZ	37583INOX	37583ZL
	200	1,6	37584	37584HDZ	37584INOX	37584ZL
	300	2,71	37585	37585HDZ	37585INOX	37585ZL
	400	3,9	37586	37586HDZ	37586INOX	37586ZL
	500	5,27	37587	37587HDZ	37587INOX	37587ZL
80	600	6,52	37588	37588HDZ	37588INOX	37588ZL
	80	1,05	37161	37161HDZ	37161INOX	37161ZL
	100	1,28	37162	37162HDZ	37162INOX	37162ZL
	150	1,66	37163	37163HDZ	37163INOX	37163ZL
	200	2,15	37164	37164HDZ	37164INOX	37164ZL
	300	3,26	37165	37165HDZ	37165INOX	37165ZL
100	400	4,445	37166	37166HDZ	37166INOX	37166ZL
	500	5,815	37167	37167HDZ	37167INOX	37167ZL
	600	7,06	37168	37168HDZ	37168INOX	37168ZL
	100	1,88	37172	37172HDZ	37172INOX	37172ZL
	150	2,26	37173	37173HDZ	37173INOX	37173ZL
	200	2,75	37174	37174HDZ	37174INOX	37174ZL
	300	3,86	37175	37175HDZ	37175INOX	37175ZL
	400	5,04	37176	37176HDZ	37176INOX	37176ZL
	500	6,42	37177	37177HDZ	37177INOX	37177ZL
	600	7,6	37178	37178HDZ	37178INOX	37178ZL

## Cover for vertical side TDS T-branch

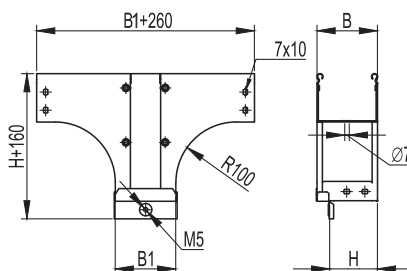
**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	0,245	38301	38301HDZ	38301INOX	38301ZL
100	0,310	38322	38322HDZ	38322INOX	38322ZL
150	0,480	38323	38323HDZ	38323INOX	38323ZL
200	0,680	38324	38324HDZ	38324INOX	38324ZL
300	1,190	38325	38325HDZ	38325INOX	38325ZL
400	1,830	38326	38326HDZ	38326INOX	38326ZL
500	2,590	38327	38327HDZ	38327INOX	38327ZL
600	3,37	38328	38328HDZ	38328INOX	38328ZL

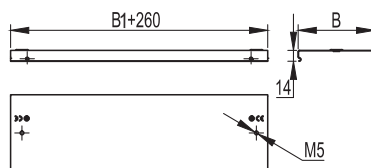
**Vertical TDSA T-branch – adapter**

**Purpose:**

- arrangement of T-type line branch of trays 80 mm high downwards providing a rotation of exposed part of tray by 90° about its axis. The base of departing tray is wider than the original.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width, B, mm	Width, B1, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	80	100	1,140	37601	37601HDZ	37601INOX	37601ZL
	80	150	1,300	37602	37602HDZ	37602INOX	37602ZL
	80	200	1,500	37603	37603HDZ	37603INOX	37603ZL
	80	300	1,840	37604	37604HDZ	37604INOX	37604ZL
	100	150	1,460	37605	37605HDZ	37605INOX	37605ZL
	100	200	1,680	37606	37606HDZ	37606INOX	37606ZL
	100	300	2,070	37607	37607HDZ	37607INOX	37607ZL
	150	200	1,920	37610	37610HDZ	37610INOX	37610ZL
	150	300	2,370	37611	37611HDZ	37611INOX	37611ZL
	150	400	2,750	37612	37612HDZ	37612INOX	37612ZL
	200	300	2,680	37614	37614HDZ	37614INOX	37614ZL
	200	400	3,100	37615	37615HDZ	37615INOX	37615ZL
	200	500	3,550	37616	37616HDZ	37616INOX	37616ZL
	300	400	3,800	37617	37617HDZ	37617INOX	37617ZL
	300	500	4,300	37618	37618HDZ	37618INOX	37618ZL

**Cover for Vertical TDSA T-branch – adapter**

**Purpose:**

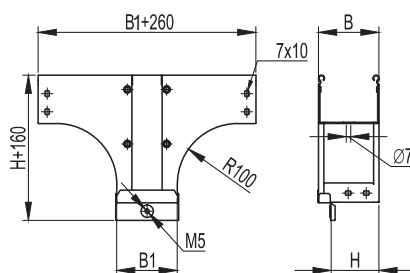
- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Width B1, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	100	0,260	38381	38381HDZ	38381INOX	38381ZL
80	150	0,300	38382	38382HDZ	38382INOX	38382ZL
80	200	0,330	38383	38383HDZ	38383INOX	38383ZL
80	300	0,400	38384	38384HDZ	38384INOX	38384ZL
100	150	0,350	38385	38385HDZ	38385INOX	38385ZL
100	200	0,390	38386	38386HDZ	38386INOX	38386ZL
100	300	0,480	38387	38387HDZ	38387INOX	38387ZL
150	200	0,540	38390	38390HDZ	38390INOX	38390ZL
150	300	0,650	38391	38391HDZ	38391INOX	38391ZL
150	400	0,770	38392	38392HDZ	38392INOX	38392ZL
200	300	0,830	38394	38394HDZ	38394INOX	38394ZL
200	400	0,980	38395	38395HDZ	38395INOX	38395ZL
200	500	1,130	38396	38396HDZ	38396INOX	38396ZL
300	400	1,400	38397	38397HDZ	38397INOX	38397ZL
300	500	1,600	38398	38398HDZ	38398INOX	38398ZL

## Vertical TDSR T-branch – adapter

**Purpose:**

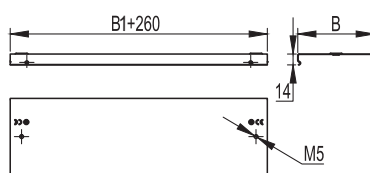
- arrangement of T-type line branch of trays 80 mm high downwards providing a rotation of exposed part of tray by 90° about its axis. The base of departing tray is narrower than the original.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Width B1, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 3
80	100	80	1,200	37620	37620HDZ	37620INOX	37620ZL
	150	80	1,400	37621	37621HDZ	37621INOX	37621ZL
	150	100	1,480	37622	37622HDZ	37622INOX	37622ZL
	200	80	1,480	37623	37623HDZ	37623INOX	37623ZL
	200	100	1,700	37624	37624HDZ	37624INOX	37624ZL
	200	150	1,935	37625	37625HDZ	37625INOX	37625ZL
	300	80	2,050	37626	37626HDZ	37626INOX	37626ZL
	300	100	2,160	37627	37627HDZ	37627INOX	37627ZL
	300	150	2,420	37628	37628HDZ	37628INOX	37628ZL
	300	200	2,730	37629	37629HDZ	37629INOX	37629ZL
	400	150	2,870	37632	37632HDZ	37632INOX	37632ZL
	400	200	3,220	37633	37633HDZ	37633INOX	37633ZL
	500	200	3,750	37638	37638HDZ	37638INOX	37638ZL
	500	300	4,480	37639	37639HDZ	37639INOX	37639ZL
	500	400	4,300	37640	37640HDZ	37640INOX	37640ZL

## Cover for Vertical TDSR T-branch – adapter

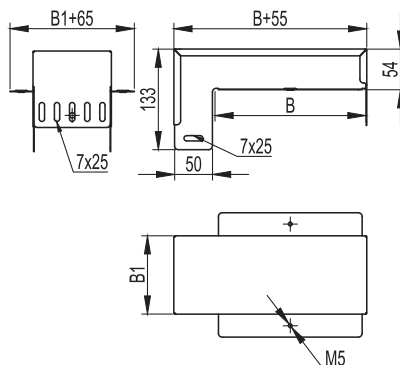
**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Width B1, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
100	80	0,290	38302	38302HDZ	38302INOX	38302ZL
150	80	0,400	38303	38303HDZ	38303INOX	38303ZL
150	100	0,420	38400	38400HDZ	38400INOX	38400ZL
200	80	0,500	38304	38304HDZ	38304INOX	38304ZL
200	100	0,530	38401	38401HDZ	38401INOX	38401ZL
200	150	0,600	38402	38402HDZ	38402INOX	38402ZL
300	80	0,720	38305	38305HDZ	38305INOX	38305ZL
300	100	0,760	38403	38403HDZ	38403INOX	38403ZL
300	150	0,870	38404	38404HDZ	38404INOX	38404ZL
300	200	0,980	38405	38405HDZ	38405INOX	38405ZL
400	150	1,130	38407	38407HDZ	38407INOX	38407ZL
400	200	1,270	38408	38408HDZ	38408INOX	38408ZL
500	200	1,570	38412	38412HDZ	38412INOX	38412ZL
500	300	1,900	38413	38413HDZ	38413INOX	38413ZL
500	400	1,600	38414	38414HDZ	38414INOX	38414ZL

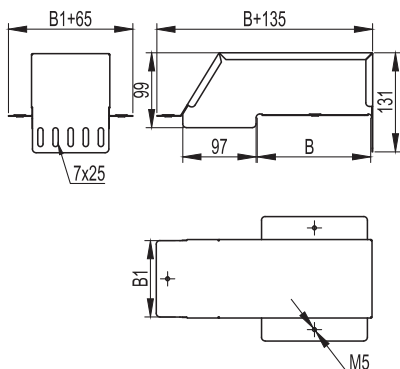
**Cover-type vertical branch DDS**

**Purpose:**

- arrangement of T-type line branch downwards providing a rotation of exposed part of tray by 90° about its axis. It is easy to use during the building of cable trays as there is no need of cutting the trays;
- cable line from which the branch is made can be of any height.

**Characteristics:**

- steel thickness – 0,8 mm.

Width B, mm	Width B1, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
100	50	0,364	37378	37378HDZ	37378INOX	37378ZL
150	50	0,439	37379	37379HDZ	37379INOX	37379ZL
200	50	0,513	37380	37380HDZ	37380INOX	37380ZL
200	100	0,660	37381	37381HDZ	37381INOX	37381ZL
300	50	0,664	37382	37382HDZ	37382INOX	37382ZL
300	100	0,843	37383	37383HDZ	37383INOX	37383ZL
300	150	1,021	37384	37384HDZ	37384INOX	37384ZL

**Cover-type horizontal branch DDT**

**Purpose:**

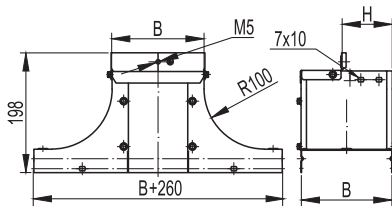
- T-type line branch; no cutting of trays is required when building cable raceways;
- cable line from which the branch is made can be of any height.

**Characteristics:**

- steel thickness – 0,8 mm.

Width B, mm	Width B1, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
100	100	0,53	36562	36562HDZ	36562INOX	36562ZL
100	150	0,64	36563	36563HDZ	36563INOX	36563ZL
100	200	0,77	36566	36566HDZ	36566INOX	36566ZL
150	200	1,03	36567	36567HDZ	36567INOX	36567ZL
100	300	0,79	36570	36570HDZ	36570INOX	36570ZL
150	300	1,28	36571	36571HDZ	36571INOX	36571ZL
200	300	1,63	36572	36572HDZ	36572INOX	36572ZL



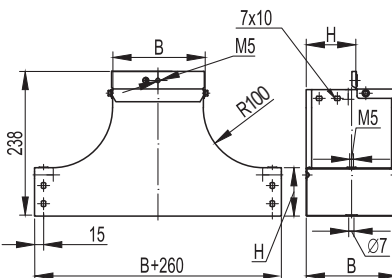
**Branch-cover (flat) TSS**

**Purpose:**

- arrangement of T-type line branch upwards providing a rotation of exposed part of tray by 90° about its axis.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,9	37532	37532HDZ	37532INOX	37532ZL
	150	1,2	37539	37539HDZ	37539INOX	37539ZL
	200	1,5	37534	37534HDZ	37534INOX	37534ZL
	300	1,6	37535	37535HDZ	37535INOX	37535ZL
	400	1,8	37536	37536HDZ	37536INOX	37536ZL
	500	2	37537	37537HDZ	37537INOX	37537ZL
	600	2,2	37238	37238HDZ	37238INOX	37238ZL
80	100	1,2	37232	37232HDZ	37232INOX	37232ZL
	150	1,4	37233	37233HDZ	37233INOX	37233ZL
	200	1,7	37234	37234HDZ	37234INOX	37234ZL
	300	1,8	37235	37235HDZ	37235INOX	37235ZL
	400	2	37226	37226HDZ	37226INOX	37226ZL
	500	2,21	37227	37227HDZ	37227INOX	37227ZL
	600	2,42	37228	37228HDZ	37228INOX	37228ZL
100	100	1,5	37332	37332HDZ	37332INOX	37332ZL
	150	1,7	37333	37333HDZ	37333INOX	37333ZL
	200	2	37334	37334HDZ	37334INOX	37334ZL
	300	2,1	37335	37335HDZ	37335INOX	37335ZL
	400	2,3	37336	37336HDZ	37336INOX	37336ZL
	500	2,51	37337	37337HDZ	37337INOX	37337ZL
	600	2,72	37338	37338HDZ	37338INOX	37338ZL

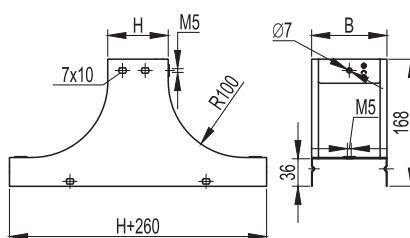
**Rising T-branch (flat) TSS**

**Purpose:**

- arrangement of T-type line branch upwards providing a rotation of exposed part of tray by 90° about its axis.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	80	1,15	37221	37221HDZ	37221INOX	37221ZL
	100	1,450	37222	37222HDZ	37222INOX	37222ZL
	150	2,050	37223	37223HDZ	37223INOX	37223ZL
	200	2,700	37224	37224HDZ	37224INOX	37224ZL
	300	4,400	37225	37225HDZ	37225INOX	37225ZL

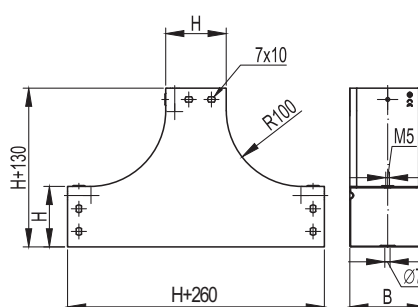
**TS branch-cover**

**Purpose:**

- arrangement of T-type line branch upwards.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	1,25	37252	37252HDZ	37252INOX	37252ZL
	150	1,05	37253	37253HDZ	37253INOX	37253ZL
	200	1,45	37254	37254HDZ	37254INOX	37254ZL
	300	1,85	37255	37255HDZ	37255INOX	37255ZL
	400	2,25	37256	37256HDZ	37256INOX	37256ZL
	500	2,65	37257	37257HDZ	37257INOX	37257ZL
80	100	1,2	37242	37242HDZ	37242INOX	37242ZL
	150	1,2	37243	37243HDZ	37243INOX	37243ZL
	200	1,7	37244	37244HDZ	37244INOX	37244ZL
	300	1,8	37245	37245HDZ	37245INOX	37245ZL
	400	2	37206	37206HDZ	37206INOX	37206ZL
	500	2,22	37207	37207HDZ	37207INOX	37207ZL
100	100	1,8	37342	37342HDZ	37342INOX	37342ZL
	150	1,9	37343	37343HDZ	37343INOX	37343ZL
	200	2,1	37344	37344HDZ	37344INOX	37344ZL
	300	2,3	37345	37345HDZ	37345INOX	37345ZL
	400	2,5	37346	37346HDZ	37346INOX	37346ZL
	500	2,7	37347	37347HDZ	37347INOX	37347ZL

**Rising TS T-branch**

**Purpose:**

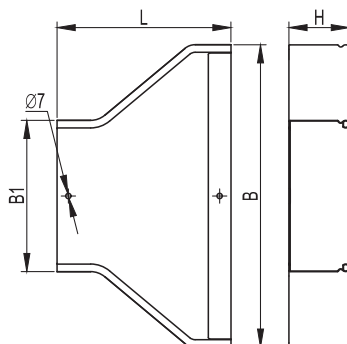
- arrangement of T-type line branch upwards.

**Characteristics:**

- steel thickness – 1,0 mm.

Height H, mm	Width B, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80	80	1,14	37201	37201HDZ	37201INOX	37201ZL
	100	1,280	37202	37202HDZ	37202INOX	37202ZL
	150	1,550	37203	37203HDZ	37203INOX	37203ZL
	200	1,770	37204	37204HDZ	37204INOX	37204ZL
	300	2,530	37205	37205HDZ	37205INOX	37205ZL

## RRC central reducer

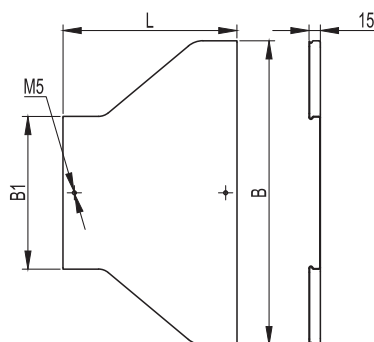
**Purpose:**

- arrangement of symmetrical transition between trays of different width.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width, B, mm	Width B1, mm	L, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 4
50	100	50	180	0,40	36308	36308HDZ	36308ZL
	150	100	180	0,43	36309	36309HDZ	36309ZL
	200	100	170	0,45	36310	36310HDZ	36310ZL
	200	150	180	0,50	36311	36311HDZ	36311ZL
	300	100	230	0,68	36312	36312HDZ	36312ZL
	300	150	200	0,67	36313	36313HDZ	36313ZL
	300	200	170	0,60	36314	36314HDZ	36314ZL
	400	200	230	0,76	36315	36315HDZ	36315ZL
	400	300	230	0,86	36316	36316HDZ	36316ZL
	500	200	250	0,91	36317	36317HDZ	36317ZL
	500	300	340	0,98	36318	36318HDZ	36318ZL
	500	400	350	1,20	36319	36319HDZ	36319ZL
	600	300	468	1,34	36420	36420HDZ	36420ZL
	600	400	348	1,28	36421	36421HDZ	36421ZL
80	150	80	180	0,45	36281	36281HDZ	36281ZL
	150	100	180	0,45	36282	36282HDZ	36282ZL
	200	80	180	0,50	36283	36283HDZ	36283ZL
	200	100	170	0,48	36284	36284HDZ	36284ZL
	200	150	180	0,52	36285	36285HDZ	36285ZL
	300	80	245	0,75	36286	36286HDZ	36286ZL
	300	100	230	0,76	36287	36287HDZ	36287ZL
	300	150	200	0,70	36288	36288HDZ	36288ZL
	300	200	170	0,60	36289	36289HDZ	36289ZL
	400	200	180	0,80	36299	36299HDZ	36299ZL
	400	300	230	0,90	36290	36290HDZ	36290ZL
	500	300	340	1,30	36291	36291HDZ	36291ZL
	500	400	350	1,58	36292	36292HDZ	36292ZL
	500	200	350	1,60	36293	36293HDZ	36293ZL
100	600	300	468	1,34	36294	36294HDZ	36294ZL
	600	400	348	1,28	36295	36295HDZ	36295ZL
	600	500	230	1,2	36296	36296HDZ	36296ZL
	150	100	180	0,56	36320	36320HDZ	36320ZL
	200	100	170	0,60	36321	36321HDZ	36321ZL
	200	150	180	0,65	36322	36322HDZ	36322ZL
	300	100	230	0,89	36323	36323HDZ	36323ZL
	300	150	200	0,88	36324	36324HDZ	36324ZL
	300	200	170	0,78	36325	36325HDZ	36325ZL
	400	200	230	1,10	36326	36326HDZ	36326ZL
	400	300	230	1,20	36327	36327HDZ	36327ZL
	500	200	250	1,25	36328	36328HDZ	36328ZL
	500	300	340	1,32	36329	36329HDZ	36329ZL
	500	400	350	1,60	36330	36330HDZ	36330ZL
	600	300	468	1,45	36431	36431HDZ	36431ZL
	600	400	348	1,36	36432	36432HDZ	36432ZL
	600	500	230	1,27	36433	36433HDZ	36433ZL

**Cover for RRC central reducer**

**Purpose:**

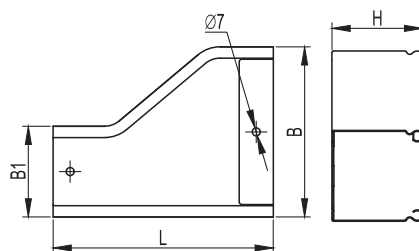
- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Width B1, mm	L, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 4
100	50	180	0,20	38079	38079HDZ	38079ZL
150	80	180	0,25	38081	38081HDZ	38081ZL
150	100	180	0,28	38082	38082HDZ	38082ZL
200	80	180	0,30	38083	38083HDZ	38083ZL
200	100	170	0,30	38084	38084HDZ	38084ZL
200	150	180	0,34	38085	38085HDZ	38085ZL
300	80	245	0,50	38086	38086HDZ	38086ZL
300	100	230	0,48	38087	38087HDZ	38087ZL
300	150	200	0,46	38088	38088HDZ	38088ZL
300	200	170	0,44	38089	38089HDZ	38089ZL
400	200	230	0,50	38308	38308HDZ	38308ZL
400	300	230	0,50	38090	38090HDZ	38090ZL
500	200	250	0,50	38093	38093HDZ	38093ZL
500	300	340	0,55	38091	38091HDZ	38091ZL
500	400	350	0,60	38092	38092HDZ	38092ZL
600	300	468	0,60	38191	38191HDZ	38191ZL
600	400	348	0,65	38192	38192HDZ	38192ZL
600	500	230	0,70	38193	38193HDZ	38193ZL

## RRS left reducer

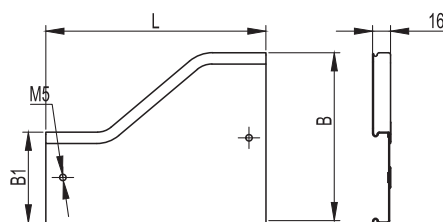
**Purpose:**

- arrangement of left-side transition to a tray of different width.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Width B1, mm	L, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 4
50	100	50	180	0,38	36354	36354HDZ	36354ZL
	150	100	170	0,40	36355	36355HDZ	36355ZL
	200	100	230	0,58	36356	36356HDZ	36356ZL
	200	150	180	0,60	36357	36357HDZ	36357ZL
	300	100	350	0,60	36358	36358HDZ	36358ZL
	300	150	290	1,10	36359	36359HDZ	36359ZL
	300	200	230	0,90	36360	36360HDZ	36360ZL
	400	200	340	1,00	36361	36361HDZ	36361ZL
	400	300	230	0,90	36362	36362HDZ	36362ZL
	500	200	280	1,00	36363	36363HDZ	36363ZL
	500	300	350	1,10	36364	36364HDZ	36364ZL
	500	400	320	1,40	36365	36365HDZ	36365ZL
	600	300	468	1,84	36466	36466HDZ	36466ZL
	600	400	348	1,44	36467	36467HDZ	36467ZL
80	600	500	230	1,65	36468	36468HDZ	36468ZL
	100	80	180	0,42	36521	36521HDZ	36521ZL
	150	80	190	0,48	36522	36522HDZ	36522ZL
	150	100	170	0,42	36523	36523HDZ	36523ZL
	200	80	250	0,68	36524	36524HDZ	36524ZL
	200	100	230	0,62	36525	36525HDZ	36525ZL
	200	150	170	0,60	36526	36526HDZ	36526ZL
	300	80	370	1,20	36527	36527HDZ	36527ZL
	300	100	350	1,10	36528	36528HDZ	36528ZL
	300	150	290	1,00	36529	36529HDZ	36529ZL
	300	200	230	0,90	36530	36530HDZ	36530ZL
	400	200	210	1,00	36305	36305HDZ	36305ZL
	400	300	230	1,20	36531	36531HDZ	36531ZL
	500	200	350	1,10	36533	36533HDZ	36533ZL
	500	300	350	1,30	36532	36532HDZ	36532ZL
	500	400	320	1,40	36307	36307HDZ	36307ZL
100	600	300	468	1,91	36608	36608HDZ	36608ZL
	600	400	348	1,5	36609	36609HDZ	36609ZL
	600	500	230	1,7	36610	36610HDZ	36610ZL
	150	100	170	0,50	36366	36366HDZ	36366ZL
	200	100	230	0,60	36367	36367HDZ	36367ZL
	200	150	180	0,68	36368	36368HDZ	36368ZL
	300	100	350	0,70	36369	36369HDZ	36369ZL
	300	150	290	1,10	36370	36370HDZ	36370ZL
	300	200	230	1,15	36371	36371HDZ	36371ZL
	400	200	340	1,20	36372	36372HDZ	36372ZL
	400	300	230	1,10	36373	36373HDZ	36373ZL
	500	200	280	1,20	36374	36374HDZ	36374ZL
	500	300	350	1,35	36375	36375HDZ	36375ZL
	500	400	320	1,80	36376	36376HDZ	36376ZL
	600	300	468	2,11	36477	36477HDZ	36477ZL
	600	400	348	1,6	36478	36478HDZ	36478ZL
	600	500	230	1,8	36479	36479HDZ	36479ZL

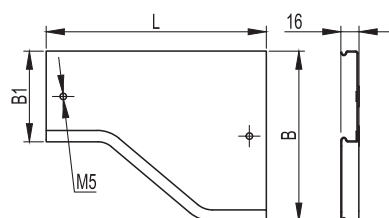
**Cover for RRS left reducer**

**Purpose:**

- protects cables from external effects.

**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Width B1, mm	L, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 4
100	50	180	0,2	38160	38160HDZ	38160ZL
100	80	180	0,22	38161	38161HDZ	38161ZL
150	80	190	0,26	38162	38162HDZ	38162ZL
150	100	170	0,24	38163	38163HDZ	38163ZL
200	80	250	0,36	38164	38164HDZ	38164ZL
200	100	230	0,38	38165	38165HDZ	38165ZL
200	150	180	0,32	38166	38166HDZ	38166ZL
300	80	370	0,7	38167	38167HDZ	38167ZL
300	100	350	0,72	38168	38168HDZ	38168ZL
300	150	290	0,62	38169	38169HDZ	38169ZL
300	200	230	0,54	38170	38170HDZ	38170ZL
400	200	210	0,65	38313	38313HDZ	38313ZL
400	300	230	0,7	38171	38171HDZ	38171ZL
500	200	350	0,82	38315	38315HDZ	38315ZL
500	300	350	0,9	38172	38172HDZ	38172ZL
500	400	320	1,1	38173	38173HDZ	38173ZL
600	300	468	1,28	38072	38072HDZ	38072ZL
600	400	348	1,2	38073	38073HDZ	38073ZL
600	500	230	0,9	38074	38074HDZ	38074ZL

**Cover for RRD right reducer**

**Purpose:**

- protects cables from external effects.

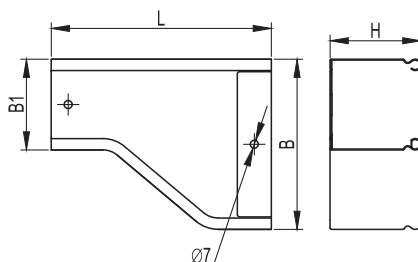
**Characteristics:**

- steel thickness – 0,6 mm.

Width B, mm	Width B1, mm	L, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 4
100	50	180	0,2	38120	38120HDZ	38120ZL
100	80	180	0,22	38121	38121HDZ	38121ZL
150	80	190	0,26	38122	38122HDZ	38122ZL
150	100	170	0,24	38123	38123HDZ	38123ZL
200	80	250	0,36	38124	38124HDZ	38124ZL
200	100	230	0,38	38125	38125HDZ	38125ZL
200	150	180	0,32	38126	38126HDZ	38126ZL
300	80	370	0,7	38127	38127HDZ	38127ZL
300	100	350	0,72	38128	38128HDZ	38128ZL
300	150	290	0,62	38129	38129HDZ	38129ZL
300	200	230	0,54	38130	38130HDZ	38130ZL
400	200	210	0,65	38310	38310HDZ	38310ZL
400	300	230	0,7	38131	38131HDZ	38131ZL
500	200	350	0,82	38316	38316HDZ	38316ZL
500	300	350	0,9	38132	38132HDZ	38132ZL
500	400	320	1,1	38133	38133HDZ	38133ZL
600	300	468	1,28	38032	38032HDZ	38032ZL
600	400	348	1,2	38033	38033HDZ	38033ZL
600	500	230	0,9	38034	38034HDZ	38034ZL



## RRD right reducer

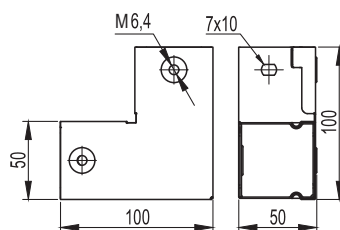
**Purpose:**

- arrangement of right-side transition to a tray of different width.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Width B1, mm	L, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 4
50	100	50	180	0,38	36331	36331HDZ	36331ZL
	150	100	170	0,40	36332	36332HDZ	36332ZL
	200	100	230	0,58	36333	36333HDZ	36333ZL
	200	150	180	0,60	36334	36334HDZ	36334ZL
	300	100	350	0,60	36335	36335HDZ	36335ZL
	300	150	290	1,10	36336	36336HDZ	36336ZL
	300	200	230	0,90	36337	36337HDZ	36337ZL
	400	200	340	1,00	36338	36338HDZ	36338ZL
	400	300	230	0,90	36339	36339HDZ	36339ZL
	500	200	280	1,00	36340	36340HDZ	36340ZL
	500	300	350	1,10	36341	36341HDZ	36341ZL
	500	400	320	1,40	36342	36342HDZ	36342ZL
	600	300	468	1,84	36443	36443HDZ	36443ZL
	600	400	348	1,4	36444	36444HDZ	36444ZL
80	600	500	230	1,65	36445	36445HDZ	36445ZL
	100	80	180	0,42	36401	36401HDZ	36401ZL
	150	80	190	0,48	36402	36402HDZ	36402ZL
	150	100	170	0,42	36403	36403HDZ	36403ZL
	200	80	250	0,68	36404	36404HDZ	36404ZL
	200	100	230	0,62	36405	36405HDZ	36405ZL
	200	150	170	0,60	36406	36406HDZ	36406ZL
	300	80	370	1,20	36407	36407HDZ	36407ZL
	300	100	350	1,10	36408	36408HDZ	36408ZL
	300	150	290	1,00	36409	36409HDZ	36409ZL
	300	200	230	0,90	36410	36410HDZ	36410ZL
	400	200	210	1,00	36301	36301HDZ	36301ZL
	400	300	230	1,20	36411	36411HDZ	36411ZL
	500	200	350	1,10	36377	36377HDZ	36377ZL
	500	300	350	1,30	36412	36412HDZ	36412ZL
	500	400	320	1,40	36413	36413HDZ	36413ZL
	600	300	468	1,91	36414	36414HDZ	36414ZL
	600	400	348	1,5	36415	36415HDZ	36415ZL
	600	500	230	1,7	36416	36416HDZ	36416ZL
100	150	100	170	0,50	36343	36343HDZ	36343ZL
	200	100	230	0,60	36344	36344HDZ	36344ZL
	200	150	180	0,68	36345	36345HDZ	36345ZL
	300	100	350	0,70	36346	36346HDZ	36346ZL
	300	150	290	1,10	36347	36347HDZ	36347ZL
	300	200	230	1,15	36348	36348HDZ	36348ZL
	400	200	340	1,20	36349	36349HDZ	36349ZL
	400	300	230	1,10	36350	36350HDZ	36350ZL
	500	200	280	1,20	36351	36351HDZ	36351ZL
	500	300	350	1,35	36352	36352HDZ	36352ZL
	500	400	320	1,80	36353	36353HDZ	36353ZL
	600	300	468	2,11	36454	36454HDZ	36454ZL
	600	400	348	1,6	36455	36455HDZ	36455ZL
	600	500	230	1,8	36456	36456HDZ	36456ZL

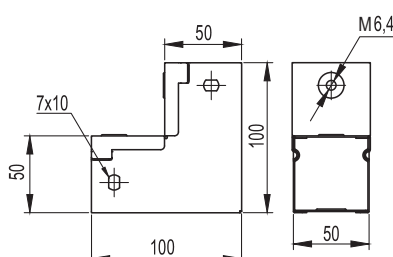
**Horizontal bend 90°, solid**

**Purpose:**

- arrangement of 90° cable line bend on the horizontal plane.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,23	39000	39000INOX	39000ZL

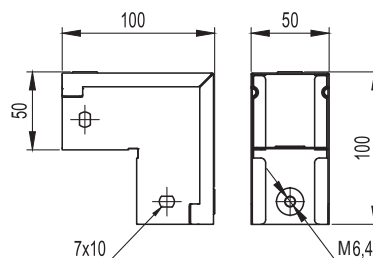
**Rising bend 90°, solid**

**Purpose:**

- arrangement of 90° upwards bend of cable line.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,22	39001	39001INOX	39001ZL

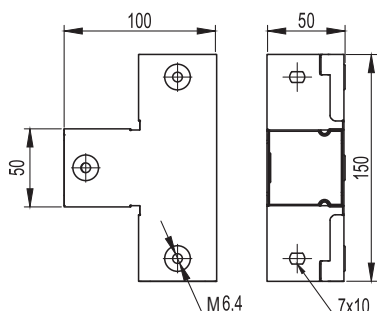
**Falling bend 90°, solid**

**Purpose:**

- arrangement of 90° downwards bend of cable line.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,25	39002	39002INOX	39002ZL

**Horizontal T-branch, solid**

**Purpose:**

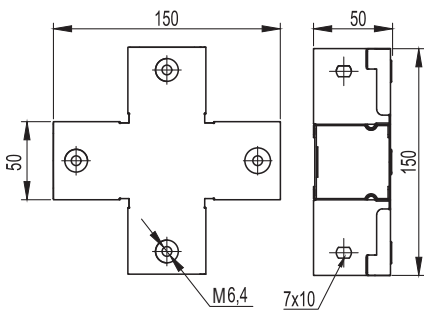
- horizontal T-branch of cable lines.

**Characteristics:**

- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,31	39003	39003INOX	39003ZL

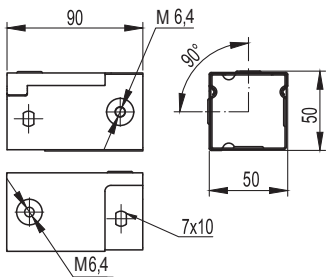
Horizontal X-type branch, solid



- Purpose:**
- horizontal double-sided X-branch of cable lines.
- Characteristics:**
- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,38	39004	39004INOX	39004ZL

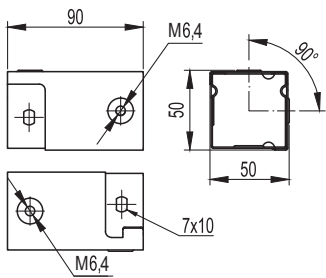
Left plane inverter, solid



- Purpose:**
- left turn of cable line surface by 90°.
- Characteristics:**
- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,14	39005	39005INOX	39005ZL

Right plane inverter, solid

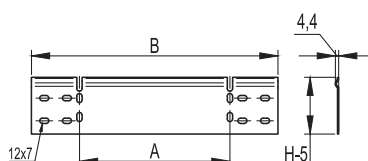


- Purpose:**
- right turn of cable line surface by 90°.
- Characteristics:**
- steel thickness – 0,8 mm.

Height H, mm	Width B, mm	Weight, kg	Code, version 1	Code, version 3	Code, version 4
50	50	0,14	39006	39006INOX	39006ZL

## Universal accessories

### Simple reducer


**Purpose:**

- connection of trays of different width.

**Characteristics:**

- steel thickness – 1,2 mm;
- if reduction is one-sided, these reducers are used together with reinforced connectors GTO L of a correspondent height;
- delivered in not bent form.

Height H, mm	Passage width A, mm	Weight, ver. 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,12	LR5100	LR5100HDZL	LR5100INOX	LR5100HDZL
	200	0,18	LR5200	LR5200HDZL	LR5200INOX	LR5200HDZL
	300	0,23	LR5300	LR5300HDZL	LR5300INOX	LR5300HDZL
	400	0,29	LR5400	LR5400HDZL	LR5400INOX	LR5400HDZL
80	100	0,19	LR8100	LR8100HDZL	LR8100INOX	LR8100HDZL
	200	0,27	LR8200	LR8200HDZL	LR8200INOX	LR8200HDZL
	300	0,35	LR8300	LR8300HDZL	LR8300INOX	LR8300HDZL
	400	0,43	LR8400	LR8400HDZL	LR8400INOX	LR8400HDZL
100	100	0,23	LR1100	LR1100HDZL	LR1100INOX	LR1100HDZL
	200	0,32	LR1200	LR1200HDZL	LR1200INOX	LR1200HDZL
	300	0,42	LR1300	LR1300HDZL	LR1300INOX	LR1300HDZL
	400	0,52	LR1400	LR1400HDZL	LR1400INOX	LR1400HDZL

### Zinc spray


**Composition:**

- alkyd styrene resin and flaky zinc and aluminium pigments (90 %).

**Purpose:**

- used indoors and outdoors for applying a durable, corrosion-resistant coating on the metal surface, for corrosion protection of welded seams;
- for repairing damaged galvanized coatings.

**Characteristics:**

- color – RAL 9006, color of hot galvanized surfaces;
- consumption – 150 ml/m<sup>2</sup>;
- thickness of the covering – 30–50 mc;
- dust dry after (20 °C) – 15 min;
- hardened after (20 °C) – 12 h;
- temperature resistance after complete hardening: approx. –50 up to +500 °C;

**Method of application:**

- before to the application, it is necessary firstly to remove the rust, clean and degrease the surface.

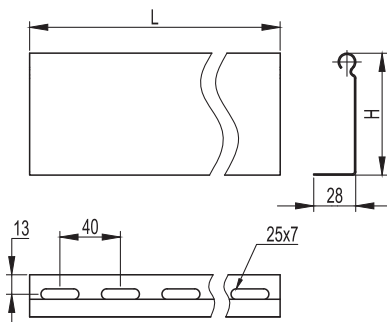
Spray on evenly and crosswise at room temperature (approx. 20°C) and at about 25 cm distance from the surface.

**Test for resistance to salt spray DIN 50021/53167:**

- more than 550 hours.

Description	Volume, ml	Code
Zinc spray paint	400	37039HDZ

## SEP separator



### Purpose:

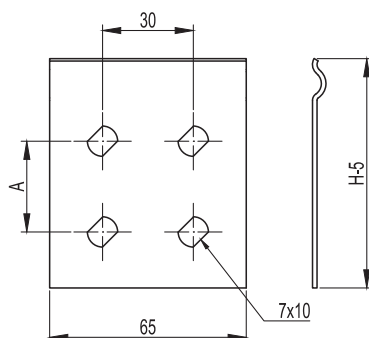
- division of cables inside a tray.

### Characteristics:

- steel thickness – 0,8 mm.

Height H, mm	Length L, mm	Weight, ver. 1, kg/m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	2000	0,48	36470	36470HDZ	36470INOX	36470ZL
50	3000	0,48	36480	36480HDZ	36480INOX	36480ZL
80	2000	0,68	36490	36490HDZ	36490INOX	36490ZL
80	3000	0,68	36500	36500HDZ	36500INOX	36500ZL
100	3000	0,84	36510	36510HDZ	36510INOX	36510ZL

## GTO joint plate



### Purpose:

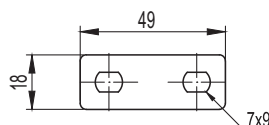
- connection of the trays and accessories if "male-female" connection is not provided.

### Characteristics:

- steel thickness – 1,0 mm.

Height H, mm	Weight version 1, kg/pcs.	A, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,03	0	37301	37301HDZL	37301INOX	37301HDZL
80	0,04	30	37303	37303HDZL	37303INOX	37303HDZL
100	0,07	50	37305	37305HDZL	37305INOX	37305HDZL

## PTCE grounding plate



### Purpose:

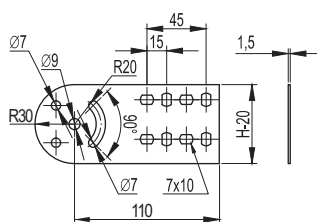
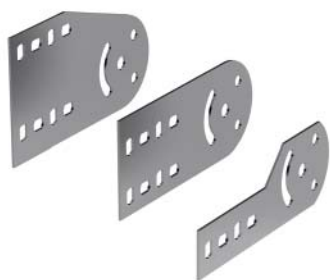
- nickel copper plate serves for grounding of "female-female", "male-male" joint connections.

### Characteristics:

- thickness – 1 mm.

Height H, mm	Weight, kg/pcs.	Code
50-80-100	0,03	37501

## Vertical adjustable joint GSV


**Purpose:**

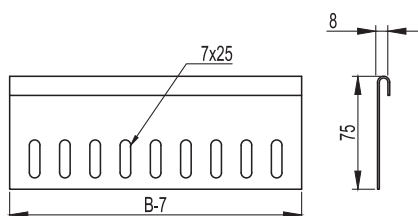
- adjustment of level of cable tray at an various angle.

**Characteristics:**

- joint thickness – 1,5 mm.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,23	30013	30013HDZL	30013INOX	30013HDZL
80	0,25	30014	30014HDZL	30014INOX	30014HDZL
100	0,3	30015	30015HDZL	30015INOX	30015HDZL

## RP protective plate


**Purpose:**

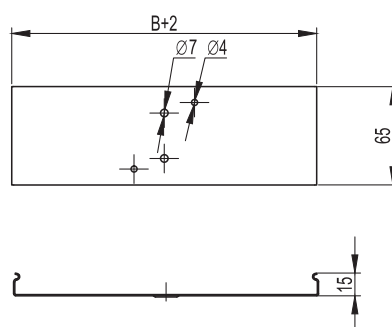
- protection of cable from the sharp edges of tray.

**Characteristics:**

- mounted to the base of tray with square neck bolt M6x10 and hexagon nut M6 with serrate flange from "M5 Combitech" group;
- plate thickness – 1,2 mm.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50 80 100	100	0,08	36900	36900HDZL	36900INOX	36900HDZL
	150	0,11	36910	36910HDZL	36910INOX	36910HDZL
	200	0,15	36920	36920HDZL	36920INOX	36920HDZL
	300	0,31	36940	36940HDZL	36940INOX	36940HDZL
	400	0,30	36920 + 36920	36920HDZL + 36920HDZL	36920INOX + 36920INOX	36920HDZL + 36920HDZL
	500	0,46	36920 + 36940	36920HDZL + 36940HDZL	36920INOX + 36940INOX	36920HDZL + 36940HDZL

## Splice plate CGC for tray cover


**Purpose:**

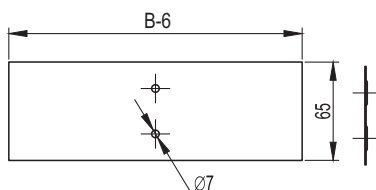
- connection of the unevenly cut trays covers.

**Characteristics:**

- mounted to the tray covers with square neck bolt M6x10 and hexagon nut M6 with serrate flange from "M5 Combitech" group;
- thickness – 1 mm.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50 80 100	50	0,04	37390	37390HDZL	37390INOX	37390HDZL
	80	0,04	37391	37391HDZL	37391INOX	37391HDZL
	100	0,06	37392	37392HDZL	37392INOX	37392HDZL
	150	0,08	37393	37393HDZL	37393INOX	37393HDZL
	200	0,10	37394	37394HDZL	37394INOX	37394HDZL
	300	0,15	37395	37395HDZL	37395INOX	37395HDZL
	400	0,20	37396	37396HDZL	37396INOX	37396HDZL
	500	0,25	37397	37397HDZL	37397INOX	37397HDZL
	600	0,3	37398	37398HDZL	37398INOX	37398HDZL

## CGB joint for tray base



### Purpose:

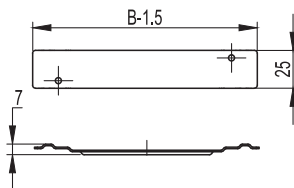
- connection of the unevenly cut trays.

### Characteristics:

- mounted to the tray covers with square neck bolt M6x10 and hexagon nut M6 with serrate flange from "M5 Combitech" group;
- thickness – 1 mm.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50 80 100	50	0,03	37350	37350HDZL	37350INOX	37350HDZL
	80	0,03	37351	37351HDZL	37351INOX	37351HDZL
	100	0,04	37352	37352HDZL	37352INOX	37352HDZL
	150	0,06	37353	37353HDZL	37353INOX	37353HDZL
	200	0,10	37354	37354HDZL	37354INOX	37354HDZL
	300	0,15	37355	37355HDZL	37355INOX	37355HDZL
	400	0,20	37356	37356HDZL	37356INOX	37356HDZL
	500	0,25	37357	37357HDZL	37357INOX	37357HDZL
	600	0,3	37358	37358HDZL	37358INOX	37358HDZL

## TRC cable holder



### Purpose:

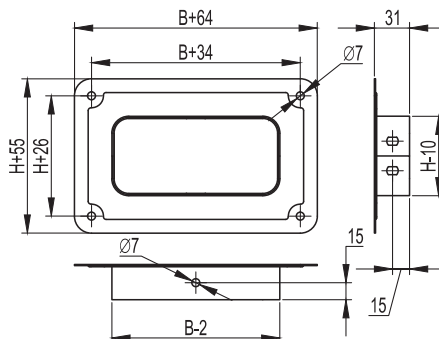
- fix cable in the vertical parts of the line. Prevents from excessive load on tray cover.

### Characteristics:

- thickness – 1,5 mm;
- mounted at a pitch not more than 1,0 m.
- additional connection elements are not required.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50 80 100	80	0,03	37561	37561HDZL	37561INOX	37561HDZL
	100	0,03	37562	37562HDZL	37562INOX	37562HDZL
	150	0,05	37563	37563HDZL	37563INOX	37563HDZL
	200	0,06	37564	37564HDZL	37564INOX	37564HDZL
	300	0,09	37565	37565HDZL	37565INOX	37565HDZL

## FR connection flange



### Purpose:

- cable entry in wall and equipment.

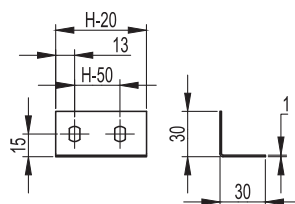
### Characteristics:

- plate thickness – 1 mm.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,05	37410	37410HDZL	37410INOX	37410HDZL
80	80	1,12	37431	37431HDZL	37431INOX	37431HDZL
	100	1,16	37432	37432HDZL	37432INOX	37432HDZL
	150	0,24	37433	37433HDZL	37433INOX	37433HDZL
	200	0,26	37434	37434HDZL	37434INOX	37434HDZL
	300	0,36	37435	37435HDZL	37435INOX	37435HDZL
	400	0,55	37436	37436HDZL	37436INOX	37436HDZL
	500	0,6	37437	37437HDZL	37437INOX	37437HDZL



## FR mounting angle plate


**Purpose:**

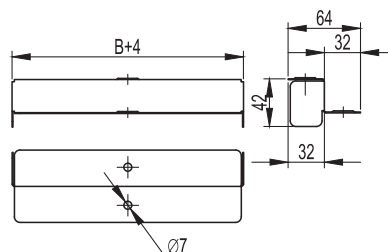
- used to assemble end cap TC and universal adapters;
- cable entry in wall and equipment.

**Characteristics:**

- thickness – 1 mm.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,15	30199	30199HDZL	30199INOX	30199HDZL
80	0,25	30189	30189HDZL	30189INOX	30189HDZL
100	0,35	30190	30190HDZL	30190INOX	30190HDZL

## RB Height reducer


**Purpose:**

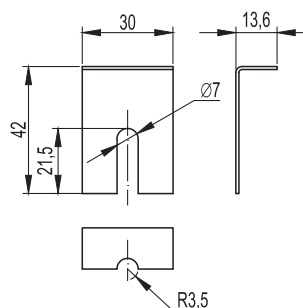
- ensures grounding when connecting trays parts of different height. It is used for cable trays with cover.

**Characteristics:**

- thickness – 1 mm.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80-50	100	0,08	36542	36542HDZL	36542INOX	36542HDZL
	150	0,11	36543	36543HDZL	36543INOX	36543HDZL
	200	0,14	36544	36544HDZL	36544INOX	36544HDZL
	300	0,19	36545	36545HDZL	36545INOX	36545HDZL
	400	0,25	36546	36546HDZL	36546INOX	36546HDZL
	500	0,31	36547	36547HDZL	36547INOX	36547HDZL
100-50	100	0,1	36548	36548HDZL	36548INOX	36548HDZL
	150	0,14	36549	36549HDZL	36549INOX	36549HDZL
	200	0,18	36550	36550HDZL	36550INOX	36550HDZL
	300	0,25	36551	36551HDZL	36551INOX	36551HDZL
	400	0,33	36552	36552HDZL	36552INOX	36552HDZL
	500	0,4	36553	36553HDZL	36553INOX	36553HDZL
100-80	100	0,07	36554	36554HDZL	36554INOX	36554HDZL
	150	0,1	36555	36555HDZL	36555INOX	36555HDZL
	200	0,12	36556	36556HDZL	36556INOX	36556HDZL
	300	0,17	36557	36557HDZL	36557INOX	36557HDZL
	400	0,23	36558	36558HDZL	36558INOX	36558HDZL
	500	0,28	36559	36559HDZL	36559INOX	36559HDZL

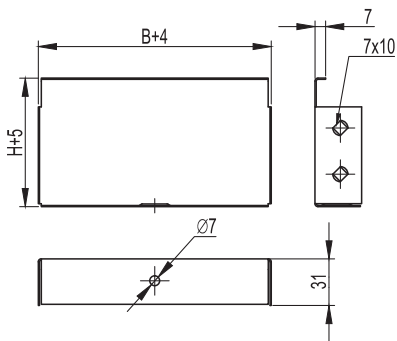
## Cover holder


**Purpose:**

- additional cover fixator for ladder and sheet trays installed in open air in condition of strong wind loads.

Height H, mm	Weight, kg/pcs.	Code, version 3	Code, version 4
50-80-100	0,15	38500INOX	38500ZL

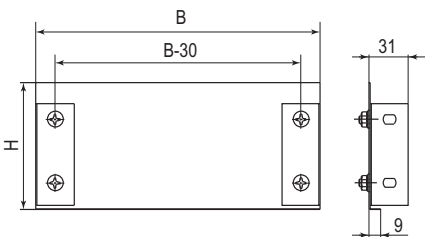
TC solid end cap



- Purpose:**
- it is mounted to the cable tray's ends.
- Characteristics:**
- thickness – 1 mm.

Height H, mm	Width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	50	0,08	37240	37240HDZL	37240INOX	37240HDZL
80	80	0,11	37261	37261HDZL	37261INOX	37261HDZL
	100	0,12	37262	37262HDZL	37262INOX	37262HDZL
	150	0,18	37263	37263HDZL	37263INOX	37263HDZL
	200	0,22	37264	37264HDZL	37264INOX	37264HDZL
	300	0,3	37265	37265HDZL	37265INOX	37265HDZL
	400	0,4	37266	37266HDZL	37266INOX	37266HDZL
	500	0,5	37267	37267HDZL	37267INOX	37267HDZL
	600	0,6	37269	37269HDZL	37269INOX	37269HDZL

TC assembled end cap

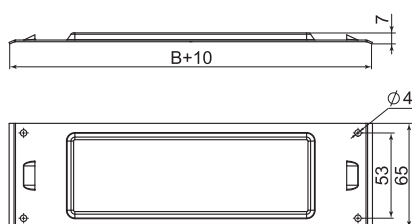


- Purpose:**
- it is mounted to the cable tray's ends.
- Characteristics:**
- thickness – 1 mm.

Height H, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	30193	30193HDZL	30193INOX	30193HDZL
	150	30194	30194HDZL	30194INOX	30194HDZL
	200	30195	30195HDZL	30195INOX	30195HDZL
	300	30196	30196HDZL	30196INOX	30196HDZL
	400	30197	30197HDZL	30197INOX	30197HDZL
	500	30198	30198HDZL	30198INOX	30198HDZL
	600	37268	37268HDZL	37268INOX	37268HDZL
100	100	30265	30265HDZL	30265INOX	30265HDZL
	150	30266	30266HDZL	30266INOX	30266HDZL
	200	30267	30267HDZL	30267INOX	30267HDZL
	300	30268	30268HDZL	30268INOX	30268HDZL
	400	30269	30269HDZL	30269INOX	30269HDZL
	500	30270	30270HDZL	30270INOX	30270HDZL
	600	37270	37270HDZL	37270INOX	37270HDZL

## Protection system IP44

### Protective plate of the base IP44


**Purpose:**

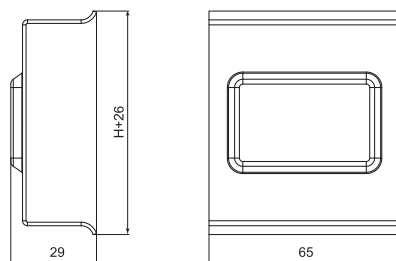
- provides an additional degree of protection IP44 in the joints of non-perforated trays in combination with the sealing plates.

**Characteristics:**

- steel thickness – 1 mm.

Height, mm	Width B, mm	Weight, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50, 80, 100	50	0,030	30570	30570HDZL	30570INOX	30570HDZL
	80	0,046	30581	30581HDZL	30581INOX	30581HDZL
	100	0,056	30582	30582HDZL	30582INOX	30582HDZL
	150	0,096	30583	30583HDZL	30583INOX	30583HDZL
	200	0,106	30584	30584HDZL	30584INOX	30584HDZL
	300	0,157	30585	30585HDZL	30585INOX	30585HDZL
	400	0,324	30569	30569HDZL	30569INOX	30569HDZL
	500	0,420	30577	30577HDZL	30577INOX	30577HDZL
	600	0,520	30578	30578HDZL	30578INOX	30578HDZL

### Protective side plate IP44


**Purpose:**

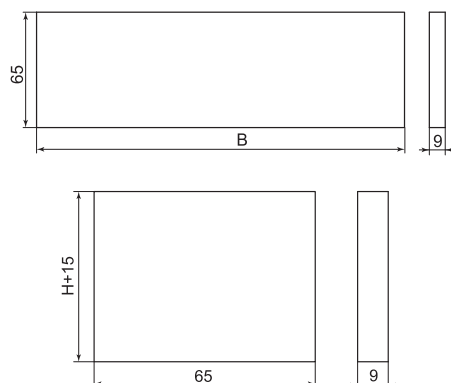
- provides an additional degree of protection IP44 in the joints of non-perforated trays in combination with the sealing plates.

**Characteristics:**

- steel thickness – 1 mm.

Height H, mm	Weight, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,058	30571	30571HDZL	30571INOX	30571HDZL
80	0,075	30580	30580HDZL	30580INOX	30580HDZL
100	0,085	30574	30574HDZL	30574INOX	30574HDZL

### IP44 protection plates


**Purpose:**

- provides an additional degree of protection IP44 in the joints of non-perforated trays in combination with metal protection plates.

Tray height, mm	Side plate code	Base plate code for trays with width B, mm								
		50	80	100	150	200	300	400	500	600
50	30573	30572	30587	30588	30589	30590	30591	30592	30593	30594
80	30586									
100	30575									

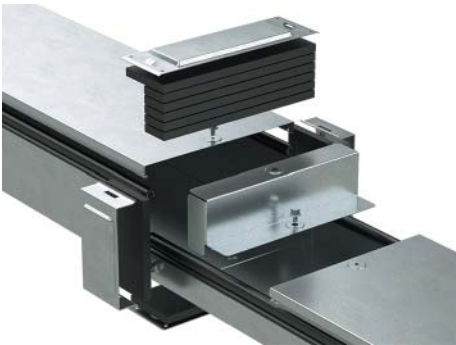
IP44 adhesive tape for tray edge



- Purpose:**
- tape is used to ensure IP44 degree of protection of non-perforated tray (in combination with cover and metal and plastic protection plates);
  - tape, 2 mm thick is used to glue joint between tray and cover.

Width, mm	Thickness, mm	Code	Length in pack, m	Weight, kg/m
30	2	37558	10	0,08

IP44 adhesive tape for trays joint



- Purpose:**
- tape is used to ensure IP44 degree of protection of non-perforated tray (in combination with cover and metal and plastic protection plates);
  - tape, 9 mm thick, in combination with metal plates (see photo) provide additional seal. It is also possible to use the tape instead of the plastic protection plates.

Width, mm	Thickness, mm	Code	Length in pack, m	Weight, kg/m
30	9	37557	10	0,15

## Tool

### Hole puncher with kit of matrices


**Purpose:**

- punching the holes in side walls of trays 80 mm and 100 mm high.

Description	Maximum thickness of metal for perforation	Code
Hole puncher for trays. 4 matrices. Manual cylinder. Case.	1,2	37039

### Matrices for hole puncher (code 37039)


**Purpose:**

- punching the holes in side walls of trays 80 mm and 100 mm high when used in combination with hole puncher 37039.

Matrix diameter, mm	Delivered q.ty, pcs.	Matrix code
13	upon request	37039013
15,5	upon request	37039015
16,5	upon request	3703911
17	upon request	3703912
18,5	1	3703913
19,5	upon request	3703914
21	1	3703915
22,5	1	3703916
24	upon request	3703917
25,5	upon request	3703918
26,5	upon request	3703919
27,5	upon request	3703920
28,5	1	3703921
30,5	upon request	3703922
32,5	upon request	3703923
33,5	upon request	3703924
37,5	upon request	3703937

### Set for trays joints punching


**Purpose:**

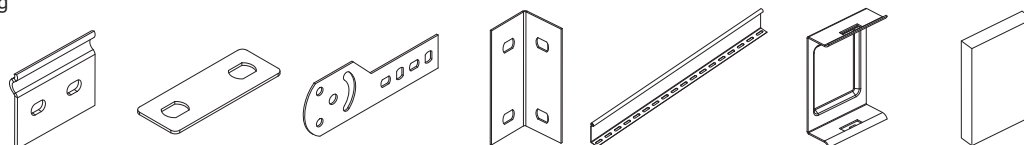
- punching the holes in side walls of trays 80 mm and 100 mm high when used in combination with hole puncher 37039.

Description	Maximum thickness of metal for perforation	Code
Set for punching trays joints (matrix for joints, punch, spanner) Universal accessories codes for the sheet trays	1,2	37040

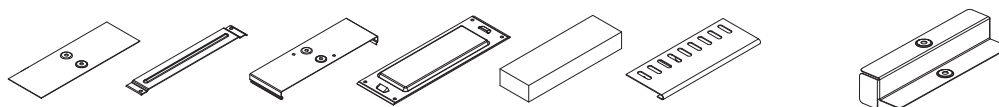
## Universal accessories codes for the sheet trays

### Versions:

version 1 – sendzimir galvanized steel;  
version 2 – Hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – steel with zinc flake coating



Height H, mm	Version	GTO joint plate	PTCE grounding plate	Vertical adjustable joint GSV	FR mounting angle plate	SEP separator, L=3000 mm	IP44 protection side plate	
							Metal	Plastic
50	<b>version 1</b>	37301	37501	30013	30199	36480	30571	30573
	version 2	37301HDZL	–	30013HDZL	30199HDZL	36480HDZ	30571HDZL	–
	version 3	37301INOX	–	30013INOX	30199INOX	36480INOX	30571INOX	–
	version 4	37301HDZL	–	30013HDZL	30199HDZL	36480ZL	30571HDZL	–
80	<b>version 1</b>	37303	37501	30014	30189	36500	30580	30586
	version 2	37303HDZL	–	30014HDZL	30189HDZL	36500HDZ	30580HDZL	–
	version 3	37303INOX	–	30014INOX	30189INOX	36500INOX	30580INOX	–
	version 4	37303HDZL	–	30014HDZL	30189HDZL	36500ZL	30580HDZL	–
100	<b>version 1</b>	37305	37501	30015	30190	36510	30574	30575
	version 2	37305HDZL	–	30015HDZL	30190HDZL	36510HDZ	30574HDZL	–
	version 3	37305INOX	–	30015INOX	30190INOX	36510INOX	30574INOX	–
	version 4	37305HDZL	–	30015HDZL	30190HDZL	36510ZL	30574HDZL	–



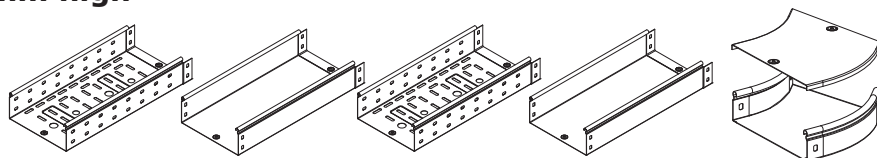
Width B, mm	Version	Splice plate CGB for tray base	TRC cable holder	Splice plate CGC for tray cover	IP44 protection plate (metal)	IP44 Protection plate (plastic)	RP protection plate	RB edge reducer H 80-H 50	RB edge reducer H 100-H 50	RB edge reducer H 100-H 80
50	<b>version 1</b>	37350	–	37390	30570	30572	–	–	–	–
	version 2	37350HDZL	–	37390HDZL	30570HDZL	–	–	–	–	–
	version 3	37350INOX	–	37390INOX	30570INOX	–	–	–	–	–
	version 4	37350HDZL	–	37390HDZL	30570HDZL	–	–	–	–	–
80	<b>version 1</b>	37351	37561	37391	30581	30587	–	–	–	–
	version 2	37351HDZL	37561HDZL	37391HDZL	30581HDZL	–	–	–	–	–
	version 3	37351INOX	37561INOX	37391INOX	30581INOX	–	–	–	–	–
	version 4	37351HDZL	37561HDZL	37391HDZL	30581HDZL	–	–	–	–	–
100	<b>version 1</b>	37352	37562	37392	30582	30588	36900	36542	36548	36554
	version 2	37352HDZL	37562HDZL	37392HDZL	30582HDZL	–	36900HDZL	36542HDZL	36548HDZL	36554HDZL
	version 3	37352INOX	37562INOX	37392INOX	30582INOX	–	36900INOX	36542INOX	36548INOX	36554INOX
	version 4	37352HDZL	37562HDZL	37392HDZL	30582HDZL	–	36900HDZL	36542HDZL	36548HDZL	36554HDZL
150	<b>version 1</b>	37353	37563	37393	30583	30589	36910	36543	36549	36555
	version 2	37353HDZL	37563HDZL	37393HDZL	30583HDZL	–	36910HDZL	36543HDZL	36549HDZL	36555HDZL
	version 3	37353INOX	37563INOX	37393INOX	30583INOX	–	36910INOX	36543INOX	36549INOX	36555INOX
	version 4	37353HDZL	37563HDZL	37393HDZL	30583HDZL	–	36910HDZL	36543HDZL	36549HDZL	36555HDZL
200	<b>version 1</b>	37354	37564	37394	30584	30590	36920	36544	36550	36556
	version 2	37354HDZL	37564HDZL	37394HDZL	30584HDZL	–	36920HDZL	36544HDZL	36550HDZL	36556HDZL
	version 3	37354INOX	37564INOX	37394INOX	30584INOX	–	36920INOX	36544INOX	36550INOX	36556INOX
	version 4	37354HDZL	37564HDZL	37394HDZL	30584HDZL	–	36920HDZL	36544HDZL	36550HDZL	36556HDZL
300	<b>version 1</b>	37355	37565	37395	30585	30591	36940	36545	36551	36557
	version 2	37355HDZL	37565HDZL	37395HDZL	30585HDZL	–	36940HDZL	36545HDZL	36551HDZL	36557HDZL
	version 3	37355INOX	37565INOX	37395INOX	30585INOX	–	36940INOX	36545INOX	36551INOX	36557INOX
	version 4	37355HDZL	37565HDZL	37395HDZL	30585HDZL	–	36940HDZL	36545HDZL	36551HDZL	36557HDZL
400	<b>version 1</b>	37356	–	37396	30569	30592	–	36546	36552	36558
	version 2	37356HDZL	–	37396HDZL	30569HDZL	30592HDZ	–	36546HDZL	36552HDZL	36558HDZL
	version 3	37356INOX	–	37396INOX	30569INOX	30592INOX	–	36546INOX	36552INOX	36558INOX
	version 4	37356HDZL	–	37396HDZL	30569HDZL	30592ZL	–	36546HDZL	36552HDZL	36558HDZL
500	<b>version 1</b>	37357	–	37397	30577	30593	–	36547	36553	36559
	version 2	37357HDZL	–	37397HDZL	30577HDZL	30593HDZ	–	36547HDZL	36553HDZL	36559HDZL
	version 3	37357INOX	–	37397INOX	30577HDZ	30593INOX	–	36547INOX	36553INOX	36559INOX
	version 4	37357HDZL	–	37397HDZL	30577HDZL	30593ZL	–	36547HDZL	36553HDZL	36559HDZL

## Universal accessories codes for the sheet trays

### Versions:

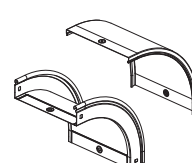
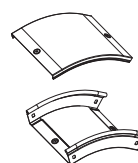
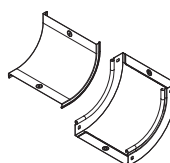
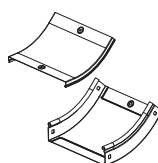
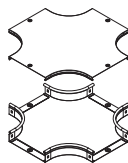
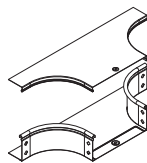
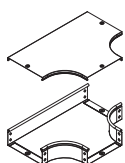
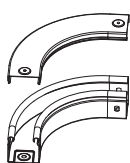
version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.

## Sheet trays and accessories 50 mm high



Height H, mm	Width B, mm	Version	Perfor. tray L=3000 mm	Non-perfor. tray L=3000 mm	Perfor. tray L=2000 mm	Non-perfor. tray L=2000 mm	CPO 45 horizontal bend 45°
50	50	<b>version 1</b>	<b>35260</b>	<b>35020</b>	<b>35250</b>	<b>35010</b>	<b>36060</b>
		version 2/4	35260HDZ/35260ZL	35020HDZ/35020ZL	35250HDZ/35250ZL	35010HDZ/35010ZL	36060HDZ/36060ZL
		version 3	35260INOX	35020INOX	35250INOX	35010INOX	36060INOX
	100	<b>version 1</b>	<b>35262</b>	<b>35022</b>	<b>35252</b>	<b>35012</b>	<b>36062</b>
		version 2/4	35262HDZ/35262ZL	35022HDZ/35022ZL	35252HDZ/35252ZL	35012HDZ/35012ZL	36062HDZ/36062ZL
		version 3	35262INOX	35022INOX	35252INOX	35012INOX	36062INOX
	150	<b>version 1</b>	<b>35263</b>	<b>35023</b>	<b>35253</b>	<b>35013</b>	<b>36063</b>
		version 2/4	35263HDZ/35263ZL	35023HDZ/35023ZL	35253HDZ/35253ZL	35013HDZ/35013ZL	36063HDZ/36063ZL
		version 3	35263INOX	35023INOX	35253INOX	35013INOX	36063INOX
	200	<b>version 1</b>	<b>35264</b>	<b>35024</b>	<b>35254</b>	<b>35014</b>	<b>36064</b>
		version 2/4	35264HDZ/35264ZL	35024HDZ/35024ZL	35254HDZ/35254ZL	35014HDZ/35014ZL	36064HDZ/36064ZL
		version 3	35264INOX	35024INOX	35254INOX	35014INOX	36064INOX
	300	<b>version 1</b>	<b>35265</b>	<b>35025</b>	<b>35255</b>	<b>35015</b>	<b>36065</b>
		version 2/4	35265HDZ/35265ZL	35025HDZ/35025ZL	35255HDZ/35255ZL	35015HDZ/35015ZL	36065HDZ/36065ZL
		version 3	35265INOX	35025INOX	35255INOX	35015INOX	36065INOX
	400	<b>version 1</b>	<b>35266</b>	<b>35026</b>	<b>35256</b>	<b>35016</b>	<b>36066</b>
		version 2/4	35266HDZ/35266ZL	35026HDZ/35026ZL	35256HDZ/35256ZL	35016HDZ/35016ZL	36066HDZ/36066ZL
		version 3	35266INOX	35026INOX	35256INOX	35016INOX	36066INOX
	500	<b>version 1</b>	<b>35267</b>	<b>35027</b>	<b>35257</b>	<b>35017</b>	<b>36067</b>
		version 2/4	35267HDZ/35267ZL	35027HDZ/35027ZL	35257HDZ/35257ZL	35017HDZ/35017ZL	36067HDZ/36067ZL
		version 3	35267INOX	35027INOX	35257INOX	35017INOX	36067INOX
	600	<b>version 1</b>	<b>35268</b>	<b>35028</b>	<b>35258</b>	<b>35018</b>	<b>36068</b>
		version 2/4	35268HDZ/35268ZL	35028HDZ/35028ZL	–	–	36068HDZ/36068ZL
		version 3	35268INOX	35028INOX	35258INOX	35018INOX	36068INOX
Cover	50	<b>version 1</b>	<b>35520</b>	<b>35520</b>	<b>35510</b>	<b>35510</b>	<b>38020</b>
		version 2/4	35520HDZ/35520ZL	35520HDZ/35520ZL	35510HDZ/35510ZL	35510HDZ/35510ZL	38020HDZ/38020ZL
		version 3	35520INOX	35520INOX	35510INOX	35510INOX	38020INOX
	100	<b>version 1</b>	<b>35522</b>	<b>35522</b>	<b>35512</b>	<b>35512</b>	<b>38022</b>
		version 2/4	35522HDZ/35522ZL	35522HDZ/35522ZL	35512HDZ/35512ZL	35512HDZ/35512ZL	38022HDZ/38022ZL
		version 3	35522INOX	35522INOX	35512INOX	35512INOX	38022INOX
	150	<b>version 1</b>	<b>35523</b>	<b>35523</b>	<b>35513</b>	<b>35513</b>	<b>38023</b>
		version 2/4	35523HDZ/35523ZL	35523HDZ/35523ZL	35513HDZ/35513ZL	35513HDZ/35513ZL	38023HDZ/38023ZL
		version 3	35523INOX	35523INOX	35513INOX	35513INOX	38023INOX
	200	<b>version 1</b>	<b>35524</b>	<b>35524</b>	<b>35514</b>	<b>35514</b>	<b>38024</b>
		version 2/4	35524HDZ/35524ZL	35524HDZ/35524ZL	35514HDZ/35514ZL	35514HDZ/35514ZL	38024HDZ/38024ZL
		version 3	35524INOX	35524INOX	35514INOX	35514INOX	38024INOX
	300	<b>version 1</b>	<b>35525</b>	<b>35525</b>	<b>35515</b>	<b>35515</b>	<b>38025</b>
		version 2/4	35525HDZ/35525ZL	35525HDZ/35525ZL	35515HDZ/35515ZL	35515HDZ/35515ZL	38025HDZ/38025ZL
		version 3	35525INOX	35525INOX	35515INOX	35515INOX	38025INOX
	400	<b>version 1</b>	<b>35526</b>	<b>35526</b>	<b>35516</b>	<b>35516</b>	<b>38026</b>
		version 2/4	35526HDZ/35526ZL	35526HDZ/35526ZL	35516HDZ/35516ZL	35516HDZ/35516ZL	38026HDZ/38026ZL
		version 3	35526INOX	35526INOX	35516INOX	35516INOX	38026INOX
	500	<b>version 1</b>	<b>35527</b>	<b>35527</b>	<b>35517</b>	<b>35517</b>	<b>38027</b>
		version 2/4	35527HDZ/35527ZL	35527HDZ/35527ZL	35517HDZ/35517ZL	35517HDZ/35517ZL	38027HDZ/38027ZL
		version 3	35527INOX	35527INOX	35517INOX	35517INOX	38027INOX
	600	<b>version 1</b>	<b>35528</b>	<b>35528</b>	–	–	<b>38028</b>
		version 2/4	35528HDZ/35528ZL	35528HDZ/35528ZL	–	–	38028HDZ/38028ZL
		version 3	35528INOX	35528INOX	–	–	38028INOX



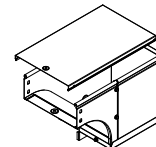
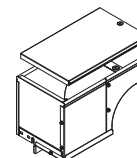
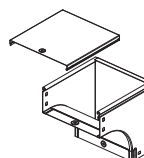
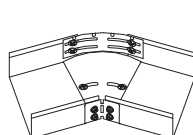


CPO 90 horizontal bend 90°	Horizontal DPT T-branch	DL T-branch	DPX X-branch	CS 45 Inner vertical bend	CS 90 Inner vertical bend	CD 45 External vertical bend	CD 90 External vertical bend
<b>36000</b>	<b>36120</b>	<b>36233</b>	<b>36180</b>	<b>36720</b>	<b>36660</b>	<b>36840</b>	<b>36780</b>
36000HDZ/36000ZL	36120HDZ/36120ZL	36233HDZ/36233ZL	36180HDZ/36180ZL	36720HDZ/36720ZL	36660HDZ/36660ZL	36840HDZ/36840ZL	36780HDZ/36780ZL
36000INOX	36120INOX	36233INOX	36180INOX	36720INOX	36660INOX	36840INOX	36780INOX
<b>36002</b>	<b>36122</b>	<b>36235</b>	<b>36182</b>	<b>36722</b>	<b>36662</b>	<b>36842</b>	<b>36782</b>
36002HDZ/36002ZL	36122HDZ/36122ZL	36235HDZ/36235ZL	36182HDZ/36182ZL	36722HDZ/36722ZL	36662HDZ/36662ZL	36842HDZ/36842ZL	36782HDZ/36782ZL
36002INOX	36122INOX	36235INOX	36182INOX	36722INOX	36662INOX	36842INOX	36782INOX
<b>36003</b>	<b>36123</b>	<b>36236</b>	<b>36183</b>	<b>36723</b>	<b>36663</b>	<b>36843</b>	<b>36783</b>
36003HDZ/36003ZL	36123HDZ/36123ZL	36236HDZ/36236ZL	36183HDZ/36183ZL	36723HDZ/36723ZL	36663HDZ/36663ZL	36843HDZ/36843ZL	36783HDZ/36783ZL
36003INOX	36123INOX	36236INOX	36183INOX	36723INOX	36663INOX	36843INOX	36783INOX
<b>36004</b>	<b>36124</b>	<b>36237</b>	<b>36184</b>	<b>36724</b>	<b>36664</b>	<b>36844</b>	<b>36784</b>
36004HDZ/36004ZL	36124HDZ/36124ZL	36237HDZ/36237ZL	36184HDZ/36184ZL	36724HDZ/36724ZL	36664HDZ/36664ZL	36844HDZ/36844ZL	36784HDZ/36784ZL
36004INOX	36124INOX	36237INOX	36184INOX	36724INOX	36664INOX	36844INOX	36784INOX
<b>36005</b>	<b>36125</b>	<b>36238</b>	<b>36185</b>	<b>36725</b>	<b>36665</b>	<b>36845</b>	<b>36785</b>
36005HDZ/36005ZL	36125HDZ/36125ZL	36238HDZ/36238ZL	36185HDZ/36185ZL	36725HDZ/36725ZL	36665HDZ/36665ZL	36845HDZ/36845ZL	36785HDZ/36785ZL
36005INOX	36125INOX	36238INOX	36185INOX	36725INOX	36665INOX	36845INOX	36785INOX
<b>36006</b>	<b>36126</b>	<b>36239</b>	<b>36186</b>	<b>36726</b>	<b>36666</b>	<b>36846</b>	<b>36786</b>
36006HDZ/36006ZL	36126HDZ/36126ZL	36239HDZ/36239ZL	36186HDZ/36186ZL	36726HDZ/36726ZL	36666HDZ/36666ZL	36846HDZ/36846ZL	36786HDZ/36786ZL
36006INOX	36126INOX	36239INOX	36186INOX	36726INOX	36666INOX	36846INOX	36786INOX
<b>36007</b>	<b>36127</b>	<b>36240</b>	<b>36187</b>	<b>36727</b>	<b>36667</b>	<b>36847</b>	<b>36787</b>
36007HDZ/36007ZL	36127HDZ/36127ZL	36240HDZ/36240ZL	36187HDZ/36187ZL	36727HDZ/36727ZL	36667HDZ/36667ZL	36847HDZ/36847ZL	36787HDZ/36787ZL
36007INOX	36127INOX	36240INOX	36187INOX	36727INOX	36667INOX	36847INOX	36787INOX
<b>36001</b>	<b>36128</b>	<b>36241</b>	<b>36188</b>	<b>36728</b>	<b>36668</b>	<b>36848</b>	<b>36788</b>
36001HDZ/36001ZL	36128HDZ/36128ZL	36241HDZ/36241ZL	36188HDZ/36188ZL	36728HDZ/36728ZL	36668HDZ/36668ZL	36848HDZ/36848ZL	36788HDZ/36788ZL
36001INOX	36128INOX	36241INOX	36188INOX	36728INOX	36668INOX	36848INOX	36788INOX
<b>38000</b>	<b>38040</b>	<b>38361</b>	<b>38060</b>	<b>38220</b>	<b>38200</b>	<b>38260</b>	<b>38240</b>
38000HDZ/38000ZL	38040HDZ/38040ZL	38361HDZ/38361ZL	38060HDZ/38060ZL	38220HDZ/38220ZL	38200HDZ/38200ZL	38260HDZ/38260ZL	38240HDZ/38240ZL
38000INOX	38040INOX	38361INOX	38060INOX	38220INOX	38200INOX	38260INOX	38240INOX
<b>38002</b>	<b>38042</b>	<b>38363</b>	<b>38062</b>	<b>38222</b>	<b>38202</b>	<b>38262</b>	<b>38242</b>
38002HDZ/38002ZL	38042HDZ/38042ZL	38363HDZ/38363ZL	38062HDZ/38062ZL	38222HDZ/38222ZL	38202HDZ/38202ZL	38262HDZ/38262ZL	38242HDZ/38242ZL
38002INOX	38042INOX	38363INOX	38062INOX	38222INOX	38202INOX	38262INOX	38242INOX
<b>38003</b>	<b>38043</b>	<b>38364</b>	<b>38063</b>	<b>38223</b>	<b>38203</b>	<b>38263</b>	<b>38243</b>
38003HDZ/38003ZL	38043HDZ/38043ZL	38364HDZ/38364ZL	38063HDZ/38063ZL	38223HDZ/38223ZL	38203HDZ/38203ZL	38263HDZ/38263ZL	38243HDZ/38243ZL
38003INOX	38043INOX	38364INOX	38063INOX	38223INOX	38203INOX	38263INOX	38243INOX
<b>38004</b>	<b>38044</b>	<b>38365</b>	<b>38064</b>	<b>38224</b>	<b>38204</b>	<b>38264</b>	<b>38244</b>
38004HDZ/38004ZL	38044HDZ/38044ZL	38365HDZ/38365ZL	38064HDZ/38064ZL	38224HDZ/38224ZL	38204HDZ/38204ZL	38264HDZ/38264ZL	38244HDZ/38244ZL
38004INOX	38044INOX	38365INOX	38064INOX	38224INOX	38204INOX	38264INOX	38244INOX
<b>38005</b>	<b>38045</b>	<b>38366</b>	<b>38065</b>	<b>38225</b>	<b>38205</b>	<b>38265</b>	<b>38245</b>
38005HDZ/38005ZL	38045HDZ/38045ZL	38366HDZ/38366ZL	38065HDZ/38065ZL	38225HDZ/38225ZL	38205HDZ/38205ZL	38265HDZ/38265ZL	38245HDZ/38245ZL
38005INOX	38045INOX	38366INOX	38065INOX	38225INOX	38205INOX	38265INOX	38245INOX
<b>38006</b>	<b>38046</b>	<b>38367</b>	<b>38066</b>	<b>38226</b>	<b>38206</b>	<b>38266</b>	<b>38246</b>
38006HDZ/38006ZL	38046HDZ/38046ZL	38367HDZ/38367ZL	38066HDZ/38066ZL	38226HDZ/38226ZL	38206HDZ/38206ZL	38266HDZ/38266ZL	38246HDZ/38246ZL
38006INOX	38046INOX	38367INOX	38066INOX	38226INOX	38206INOX	38266INOX	38246INOX
<b>38007</b>	<b>38047</b>	<b>38368</b>	<b>38067</b>	<b>38227</b>	<b>38207</b>	<b>38267</b>	<b>38247</b>
38007HDZ/38007ZL	38047HDZ/38047ZL	38368HDZ/38368ZL	38067HDZ/38067ZL	38227HDZ/38227ZL	38207HDZ/38207ZL	38267HDZ/38267ZL	38247HDZ/38247ZL
38007INOX	38047INOX	38368INOX	38067INOX	38227INOX	38207INOX	38267INOX	38247INOX
<b>38008</b>	<b>38048</b>	<b>38369</b>	<b>38068</b>	<b>38228</b>	<b>38208</b>	<b>38268</b>	<b>38248</b>
38008HDZ/38008ZL	38048HDZ/38048ZL	38369HDZ/38369ZL	38068HDZ/38068ZL	38228HDZ/38228ZL	38208HDZ/38208ZL	38268HDZ/38268ZL	38248HDZ/38248ZL
38008INOX	38048INOX	38369INOX	38068INOX	38228INOX	38208INOX	38268INOX	38248INOX

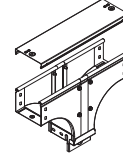
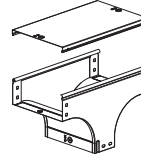
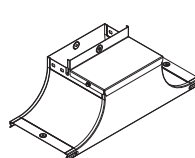
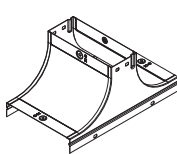
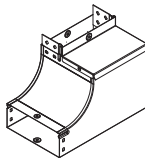
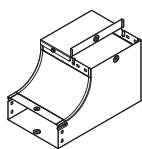
## Universal accessories codes for sheet trays 50 mm high

### Versions:

version 1 – sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height H, mm	Width B, mm	Version	Variable horizontal bend CPO	CDV 90 External vertical bend	CDS 90 External vertical bend	CDS 90 External vertical bend
50	100	<b>version 1</b>	<b>36008</b>	<b>37572</b>	<b>37502</b>	<b>37651</b>
		version 2/4	36008HDZL	37572HDZ/37572ZL	37502HDZ/37502ZL	37651HDZ/37651ZL
		version 3	36008INOX	37572INOX	37502INOX	37651INOX
	150	<b>version 1</b>	<b>36009</b>	<b>37572</b>	<b>37502</b>	<b>37651</b>
		version 2/4	36009HDZL	37573HDZ/37573ZL	37503HDZ/37503ZL	37652HDZ/37652ZL
		version 3	36009INOX	37572INOX	37502INOX	37651INOX
	200	<b>version 1</b>	<b>36010</b>	<b>37574</b>	<b>37504</b>	<b>37653</b>
		version 2/4	36010HDZL	37574HDZ/37574ZL	37504HDZ/37504ZL	37653HDZ/37653ZL
		version 1	36010INOX	37574INOX	37504INOX	37653INOX
	300	<b>version 1</b>	<b>36011</b>	<b>37575</b>	<b>37505</b>	<b>37654</b>
		version 2/4	36011HDZL	37575HDZ/37575ZL	37505HDZ/37505ZL	37654HDZ/37654ZL
		version 3	36011INOX	37575INOX	37505INOX	37654INOX
	400	<b>version 1</b>	–	<b>37576</b>	<b>37506</b>	<b>37655</b>
		version 2/4	–	37576HDZ/37576ZL	37506HDZ/37506ZL	37655HDZ/37655ZL
		version 3	–	37576INOX	37506INOX	37655INOX
	500	<b>version 1</b>	–	<b>37577</b>	<b>37507</b>	<b>37656</b>
		version 2/4	–	37577HDZ/37577ZL	37507HDZ/37507ZL	37656HDZ/37656ZL
		version 3	–	37577INOX	37507INOX	37656INOX
	600	<b>version 1</b>	–	<b>37578</b>	<b>37508</b>	<b>37657</b>
		version 2/4	–	37578HDZ/37578ZL	37508HDZ/37508ZL	37657HDZ/37657ZL
		version 3	–	37578INOX	37508INOX	37657INOX
Cover	100	<b>version 1</b>	–	<b>38341</b>	<b>38282</b>	<b>38282</b>
		version 2/4	–	38341HDZ/38341ZL	38282HDZ/38282ZL	38282HDZ/38282ZL
		version 3	–	38341INOX	38282INOX	38282INOX
	150	<b>version 1</b>	–	<b>38342</b>	<b>38283</b>	<b>38283</b>
		version 2/4	–	38342HDZ/38342ZL	38283HDZ/38283ZL	38283HDZ/38283ZL
		version 3	–	38342INOX	38283INOX	38283INOX
	200	<b>version 1</b>	–	<b>38343</b>	<b>38284</b>	<b>38284</b>
		version 2/4	–	38343HDZ/38343ZL	38284HDZ/38284ZL	38284HDZ/38284ZL
		version 3	–	38343INOX	38284INOX	38284INOX
	300	<b>version 1</b>	–	<b>38344</b>	<b>38285</b>	<b>38285</b>
		version 2/4	–	38344HDZ/38344ZL	38285HDZ/38285ZL	38285HDZ/38285ZL
		version 3	–	38344INOX	38285INOX	38285INOX
	400	<b>version 1</b>	–	<b>38345</b>	<b>38286</b>	<b>38286</b>
		version 2/4	–	38345HDZ/38345ZL	38286HDZ/38286ZL	38286HDZ/38286ZL
		version 3	–	38345INOX	38286INOX	38286INOX
	500	<b>version 1</b>	–	<b>38346</b>	<b>38287</b>	<b>38287</b>
		version 2/4	–	38346HDZ/38346ZL	38287HDZ/38287ZL	38287HDZ/38287ZL
		version 3	–	38346INOX	38287INOX	38287INOX
	600	<b>version 1</b>	–	<b>38347</b>	<b>38288</b>	<b>38288</b>
		version 2/4	–	38347HDZ/38347ZL	38288HDZ/38288ZL	38288HDZ/38288ZL
		version 3	–	38347INOX	38288INOX	38288INOX

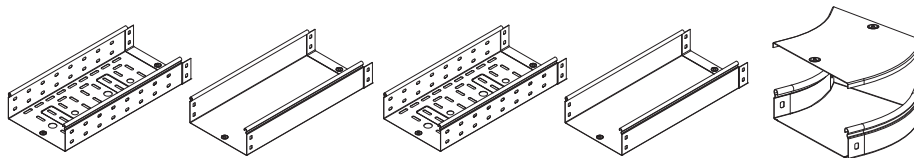


CSSD 90 Inner vertical bend	CSSS 90 Inner vertical bend	TS branch-cover	Branch-cover (flat) TSS	Vertical TD T-branch	Vertical side TDS T-branch
<b>37661</b>	<b>37592</b>	<b>37252</b>	<b>37532</b>	<b>37519</b>	<b>37582</b>
37661HDZ/37661ZL	37592HDZ/37592ZL	37252HDZ/37252ZL	37532HDZ/37532ZL	37519HDZ/37519ZL	37582HDZ/37582ZL
37661INOX	37592INOX	37252INOX	37532INOX	37519INOX	37582INOX
<b>37662</b>	<b>37593</b>	<b>37253</b>	<b>37539</b>	<b>37513</b>	<b>37583</b>
37662HDZ/37662ZL	37593HDZ/37593ZL	37253HDZ/37253ZL	37539HDZ/37539ZL	37513HDZ/37513ZL	37583HDZ/37583ZL
37662INOX	37593INOX	37253INOX	37539INOX	37513INOX	37583INOX
<b>37663</b>	<b>37594</b>	<b>37254</b>	<b>37534</b>	<b>37514</b>	<b>37584</b>
37663HDZ/37663ZL	37594HDZ/37594ZL	37254HDZ/37254ZL	37534HDZ/37534ZL	37514HDZ/37514ZL	37584HDZ/37584ZL
37663INOX	37594INOX	37254INOX	37534INOX	37514INOX	37584INOX
<b>37664</b>	<b>37595</b>	<b>37255</b>	<b>37535</b>	<b>37515</b>	<b>37585</b>
37664HDZ/37664ZL	37595HDZ/37595ZL	37255HDZ/37255ZL	37535HDZ/37535ZL	37515HDZ/37515ZL	37585HDZ/37585ZL
37664INOX	37595INOX	37255INOX	37535INOX	37515INOX	37585INOX
<b>37665</b>	<b>37596</b>	<b>37256</b>	<b>37536</b>	<b>37516</b>	<b>37586</b>
37665HDZ/37665ZL	37596HDZ/37596ZL	37256HDZ/37256ZL	37536HDZ/37536ZL	37516HDZ/37516ZL	37586HDZ/37586ZL
37665INOX	37596INOX	37256INOX	37536INOX	37516INOX	37586INOX
<b>37666</b>	<b>37597</b>	<b>37257</b>	<b>37537</b>	<b>37517</b>	<b>37587</b>
37666HDZ	37597HDZ	37257HDZ	37537HDZ	37517HDZ	37587HDZ
37666INOX	37597INOX	37257INOX	37537INOX	37517INOX	37587INOX
<b>37667</b>	<b>37598</b>	<b>37258</b>	<b>37538</b>	<b>37518</b>	<b>37588</b>
37666HDZ/37666ZL	37597HDZ/37597ZL	37257HDZ/37257ZL	37537HDZ/37537ZL	37517HDZ/37517ZL	37587HDZ/37587ZL
37667INOX	37598INOX	37258INOX	37538INOX	37518INOX	37588INOX
-	-	-	-	<b>38302</b>	<b>38322</b>
-	-	-	-	38302HDZ/38302ZL	38322HDZ/38322ZL
-	-	-	-	38302INOX	38322INOX
-	-	-	-	<b>38303</b>	<b>38323</b>
-	-	-	-	38303HDZ/38303ZL	38323HDZ/38323ZL
-	-	-	-	38303INOX	38323INOX
-	-	-	-	<b>38304</b>	<b>38324</b>
-	-	-	-	38304HDZ/38304ZL	38324HDZ/38324ZL
-	-	-	-	38304INOX	38324INOX
-	-	-	-	<b>38305</b>	<b>38325</b>
-	-	-	-	38305HDZ/38305ZL	38325HDZ/38325ZL
-	-	-	-	38305INOX	38325INOX
-	-	-	-	<b>38306</b>	<b>38326</b>
-	-	-	-	38306HDZ/38306ZL	38326HDZ/38326ZL
-	-	-	-	38306INOX	38326INOX
-	-	-	-	<b>38307</b>	<b>38327</b>
-	-	-	-	38307HDZ/38307ZL	38327HDZ/38327ZL
-	-	-	-	38307INOX	38327INOX
-	-	-	-	<b>38309</b>	<b>38328</b>
-	-	-	-	38309HDZ/38309ZL	38328HDZ/38328ZL
-	-	-	-	38309INOX	38328INOX

## Universal codes of sheet trays and accessories 80 mm high

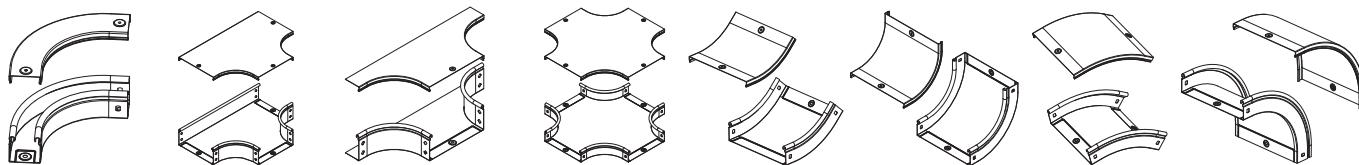
### Versions:

version 1 – sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height H, mm	Width B, mm	Version	Perfor. tray L=3000 mm	Non-perfor. tray L=3000 mm	Perfor. tray L=2000 mm	Non-perfor. tray L=2000 mm	CPO 45 horizontal bend 45°
80	80	<b>version 1</b>	<b>35301</b>	<b>35061</b>	<b>35311</b>	<b>35051</b>	<b>36081</b>
		version 2/4	35301HDZ/35301ZL	35061HDZ/35061ZL	35311HDZ/35311ZL	35051HDZ/35051ZL	36081HDZ/36081ZL
		version 3	35301INOX	35061INOX	35311INOX	35051INOX	36081INOX
	100	<b>version 1</b>	<b>35302</b>	<b>35062</b>	<b>35312</b>	<b>35052</b>	<b>36082</b>
		version 2/4	35302HDZ/35302ZL	35062HDZ/35062ZL	35312HDZ/35312ZL	35052HDZ/35052ZL	36082HDZ/36082ZL
		version 3	35302INOX	35062INOX	35311INOX	35051INOX	36082INOX
	150	<b>version 1</b>	<b>35303</b>	<b>35063</b>	<b>35313</b>	<b>35053</b>	<b>36083</b>
		version 2/4	35303HDZ/35303ZL	35063HDZ/35063ZL	35313HDZ/35313ZL	35053HDZ/35053ZL	36083HDZ/36083ZL
		version 3	35303INOX	35063INOX	35313INOX	35053INOX	36083INOX
	200	<b>version 1</b>	<b>35304</b>	<b>35064</b>	<b>35314</b>	<b>35054</b>	<b>36084</b>
		version 2/4	35304HDZ/35304ZL	35064HDZ/35064ZL	35314HDZ/35314ZL	35054HDZ/35054ZL	36084HDZ/36084ZL
		version 3	35304INOX	35064INOX	35314INOX	35054INOX	36084INOX
	300	<b>version 1</b>	<b>35305</b>	<b>35065</b>	<b>35315</b>	<b>35055</b>	<b>36085</b>
		version 2/4	35305HDZ/35305ZL	35065HDZ/35065ZL	35315HDZ/35315ZL	35055HDZ/35055ZL	36085HDZ/36085ZL
		version 3	35305INOX	35065INOX	35315INOX	35055INOX	36085INOX
	400	<b>version 1</b>	<b>35306</b>	<b>35066</b>	<b>35316</b>	<b>35056</b>	<b>36086</b>
		version 2/4	35306HDZ/35306ZL	35066HDZ/35066ZL	35316HDZ/35316ZL	35056HDZ/35056ZL	36086HDZ/36086ZL
		version 3	35306INOX	35066INOX	35316INOX	35056INOX	36086INOX
	500	<b>version 1</b>	<b>35307</b>	<b>35067</b>	<b>35317</b>	<b>35057</b>	<b>36087</b>
		version 2/4	35307HDZ/35307ZL	35067HDZ/35067ZL	35317HDZ/35317ZL	35057HDZ/35057ZL	36087HDZ/36087ZL
		version 3	35307INOX	35067INOX	35317INOX	35057INOX	36087INOX
	600	<b>version 1</b>	<b>35308</b>	<b>35068</b>	–	–	<b>36088</b>
		version 2/4	35308HDZ/35308ZL	35068HDZ/35068ZL	–	–	36088HDZ/36088ZL
		version 1	35308	35068	–	–	36088
Cover	80	<b>version 1</b>	<b>35521</b>	<b>35521</b>	<b>35511</b>	<b>35511</b>	<b>38021</b>
		version 2/4	35521HDZ/35521ZL	35521HDZ/35521ZL	35511HDZ/35511ZL	35511HDZ/35511ZL	38021HDZ/38021ZL
		version 3	35521INOX	35521INOX	35511INOX	35511INOX	38021INOX
	100	<b>version 1</b>	<b>35522</b>	<b>35522</b>	<b>35512</b>	<b>35512</b>	<b>38022</b>
		version 2/4	35522HDZ/35522ZL	35522HDZ/35522ZL	35512HDZ/35512ZL	35512HDZ/35512ZL	38022HDZ/38022ZL
		version 3	35522INOX	35522INOX	35512INOX	35512INOX	38022INOX
	150	<b>version 1</b>	<b>35523</b>	<b>35523</b>	<b>35513</b>	<b>35513</b>	<b>38023</b>
		version 2/4	35523HDZ/35523ZL	35523HDZ/35523ZL	35513HDZ/35513ZL	35513HDZ/35513ZL	38023HDZ/38023ZL
		version 3	35523INOX	35523INOX	35513INOX	35513INOX	38023INOX
	200	<b>version 1</b>	<b>35524</b>	<b>35524</b>	<b>35514</b>	<b>35514</b>	<b>38024</b>
		version 2/4	35524HDZ/35524ZL	35524HDZ/35524ZL	35514HDZ/35514ZL	35514HDZ/35514ZL	38024HDZ/38024ZL
		version 3	35524INOX	35524INOX	35514INOX	35514INOX	38024INOX
	300	<b>version 1</b>	<b>35525</b>	<b>35525</b>	<b>35515</b>	<b>35515</b>	<b>38025</b>
		version 2/4	35525HDZ/35525ZL	35525HDZ/35525ZL	35515HDZ/35515ZL	35515HDZ/35515ZL	38025HDZ/38025ZL
		version 3	35525INOX	35525INOX	35515INOX	35515INOX	38025INOX
	400	<b>version 1</b>	<b>35526</b>	<b>35526</b>	<b>35516</b>	<b>35516</b>	<b>38026</b>
		version 2/4	35526HDZ/35526ZL	35526HDZ/35526ZL	35516HDZ/35516ZL	35516HDZ/35516ZL	38026HDZ/38026ZL
		version 3	35526INOX	35526INOX	35516INOX	35516INOX	38026INOX
	500	<b>version 1</b>	<b>35527</b>	<b>35527</b>	<b>35517</b>	<b>35517</b>	<b>38027</b>
		version 2/4	35527HDZ/35527ZL	35527HDZ/35527ZL	35517HDZ/35517ZL	35517HDZ/35517ZL	38027HDZ/38027ZL
		version 3	35527INOX	35527INOX	35517INOX	35517INOX	38027INOX
	600	<b>version 1</b>	<b>35528</b>	<b>35528</b>	–	–	<b>38028</b>
		version 2/4	35528HDZ/35528ZL	35528HDZ/35528ZL	–	–	38028HDZ/38028ZL
		version 3	35528INOX	35528INOX	–	–	38028INOX

## Table of codes

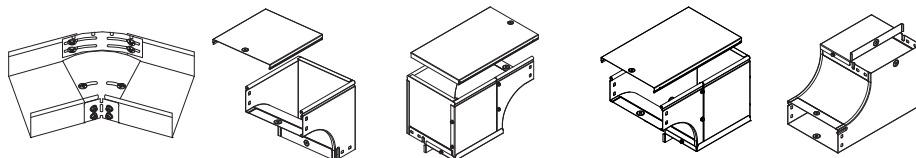


CPO 90 horizontal bend 90°	Horizontal DPT T-branch	DL T-branch	CS 45 inner rising bend 45°	CS 45 inner vertical bend	CS 90 inner vertical bend	CD 45 external vertical bend	CD 90 external vertical bend
<b>36021</b>	<b>36141</b>	<b>36249</b>	<b>36201</b>	<b>36741</b>	<b>36681</b>	<b>36861</b>	<b>36801</b>
36021HDZ/36021ZL	36141HDZ/36141ZL	36249HDZ/36249ZL	36201HDZ/36201ZL	36741HDZ/36741ZL	36681HDZ/36681ZL	36861HDZ/36861ZL	36801HDZ/36801ZL
36021INOX	36141INOX	36249INOX	36201INOX	36741INOX	36681INOX	36861INOX	36801INOX
<b>36022</b>	<b>36142</b>	<b>36250</b>	<b>36202</b>	<b>36742</b>	<b>36682</b>	<b>36862</b>	<b>36802</b>
36022HDZ/36022ZL	36142HDZ/36142ZL	36250HDZ/36250ZL	36202HDZ/36202ZL	36742HDZ/36742ZL	36682HDZ/36682ZL	36862HDZ/36862ZL	36802HDZ/36802ZL
36022INOX	36142INOX	36250INOX	36202INOX	36742INOX	36682INOX	36862INOX	36802INOX
<b>36023</b>	<b>36143</b>	<b>36251</b>	<b>36203</b>	<b>36743</b>	<b>36683</b>	<b>36863</b>	<b>36803</b>
36023HDZ/36023ZL	36143HDZ/36143ZL	36251HDZ/36251ZL	36203HDZ/36203ZL	36743HDZ/36743ZL	36683HDZ/36683ZL	36863HDZ/36863ZL	36803HDZ/36803ZL
36023INOX	36143INOX	36251INOX	36203INOX	36743INOX	36683INOX	36863INOX	36803INOX
<b>36024</b>	<b>36144</b>	<b>36252</b>	<b>36204</b>	<b>36744</b>	<b>36684</b>	<b>36864</b>	<b>36804</b>
36024HDZ/36024ZL	36144HDZ/36144ZL	36252HDZ/36252ZL	36204HDZ/36204ZL	36744HDZ/36744ZL	36684HDZ/36684ZL	36864HDZ/36864ZL	36804HDZ/36804ZL
36024INOX	36144INOX	36252INOX	36204INOX	36744INOX	36684INOX	36864INOX	36804INOX
<b>36025</b>	<b>36145</b>	<b>36253</b>	<b>36205</b>	<b>36745</b>	<b>36685</b>	<b>36865</b>	<b>36805</b>
36025HDZ/36025ZL	36145HDZ/36145ZL	36253HDZ/36253ZL	36205HDZ/36205ZL	36745HDZ/36745ZL	36685HDZ/36685ZL	36865HDZ/36865ZL	36805HDZ/36805ZL
36025INOX	36145INOX	36253INOX	36205INOX	36745INOX	36685INOX	36865INOX	36805INOX
<b>36026</b>	<b>36146</b>	<b>36254</b>	<b>36206</b>	<b>36746</b>	<b>36686</b>	<b>36866</b>	<b>36806</b>
36026HDZ/36026ZL	36146HDZ/36146ZL	36254HDZ/36254ZL	36206HDZ/36206ZL	36746HDZ/36746ZL	36686HDZ/36686ZL	36866HDZ/36866ZL	36806HDZ/36806ZL
36026INOX	36146INOX	36254INOX	36206INOX	36746INOX	36686INOX	36866INOX	36806INOX
<b>36027</b>	<b>36147</b>	<b>36255</b>	<b>36207</b>	<b>36747</b>	<b>36687</b>	<b>36867</b>	<b>36807</b>
36027HDZ/36027ZL	36147HDZ/36147ZL	36255HDZ/36255ZL	36207HDZ/36207ZL	36747HDZ/36747ZL	36687HDZ/36687ZL	36867HDZ/36867ZL	36807HDZ/36807ZL
36027INOX	36147INOX	36255INOX	36207INOX	36747INOX	36687INOX	36867INOX	36807INOX
<b>36028</b>	<b>36148</b>	<b>36256</b>	<b>36208</b>	<b>36748</b>	<b>36688</b>	<b>36868</b>	<b>36809</b>
36028HDZ/36028ZL	36148HDZ/36148ZL	36256HDZ/36256ZL	36208HDZ/36208ZL	36748HDZ/36748ZL	36688HDZ/36688ZL	36868HDZ/36868ZL	36809HDZ/36809ZL
36028INOX	36148INOX	36256INOX	36208INOX	36748INOX	36688INOX	36868INOX	36809INOX
<b>38001</b>	<b>38041</b>	<b>38362</b>	<b>38061</b>	<b>38221</b>	<b>38201</b>	<b>38261</b>	<b>38241</b>
38001HDZ/38001ZL	38041HDZ/38041ZL	38362HDZ/38362ZL	38061HDZ/38061ZL	38221HDZ/38221ZL	38201HDZ/38201ZL	38261HDZ/38261ZL	38241HDZ/38241ZL
38001INOX	38041INOX	38362INOX	38061INOX	38221INOX	38201INOX	38261INOX	38241INOX
<b>38002</b>	<b>38042</b>	<b>38363</b>	<b>38062</b>	<b>38222</b>	<b>38202</b>	<b>38262</b>	<b>38242</b>
38002HDZ/38002ZL	38042HDZ/38042ZL	38363HDZ/38363ZL	38062HDZ/38062ZL	38222HDZ/38222ZL	38202HDZ/38202ZL	38262HDZ/38262ZL	38242HDZ/38242ZL
38002INOX	38042INOX	38363INOX	38062INOX	38222INOX	38202INOX	38262INOX	38242INOX
<b>38003</b>	<b>38043</b>	<b>38364</b>	<b>38063</b>	<b>38223</b>	<b>38203</b>	<b>38263</b>	<b>38243</b>
38003HDZ/38003ZL	38043HDZ/38043ZL	38364HDZ/38364ZL	38063HDZ/38063ZL	38223HDZ/38223ZL	38203HDZ/38203ZL	38263HDZ/38263ZL	38243HDZ/38243ZL
38003INOX	38043INOX	38364INOX	38063INOX	38223INOX	38203INOX	38263INOX	38243INOX
<b>38004</b>	<b>38044</b>	<b>38365</b>	<b>38064</b>	<b>38224</b>	<b>38204</b>	<b>38264</b>	<b>38244</b>
38004HDZ/38004ZL	38044HDZ/38044ZL	38365HDZ/38365ZL	38064HDZ/38064ZL	38224HDZ/38224ZL	38204HDZ/38204ZL	38264HDZ/38264ZL	38244HDZ/38244ZL
38004INOX	38044INOX	38365INOX	38064INOX	38224INOX	38204INOX	38264INOX	38244INOX
<b>38005</b>	<b>38045</b>	<b>38366</b>	<b>38065</b>	<b>38225</b>	<b>38205</b>	<b>38265</b>	<b>38245</b>
38005HDZ/38005ZL	38045HDZ/38045ZL	38366HDZ/38366ZL	38065HDZ/38065ZL	38225HDZ/38225ZL	38205HDZ/38205ZL	38265HDZ/38265ZL	38245HDZ/38245ZL
38005INOX	38045INOX	38366INOX	38065INOX	38225INOX	38205INOX	38265INOX	38245INOX
<b>38006</b>	<b>38046</b>	<b>38367</b>	<b>38066</b>	<b>38226</b>	<b>38206</b>	<b>38266</b>	<b>38246</b>
38006HDZ/38006ZL	38046HDZ/38046ZL	38367HDZ/38367ZL	38066HDZ/38066ZL	38226HDZ/38226ZL	38206HDZ/38206ZL	38266HDZ/38266ZL	38246HDZ/38246ZL
38006INOX	38046INOX	38367INOX	38066INOX	38226INOX	38206INOX	38266INOX	38246INOX
<b>38007</b>	<b>38047</b>	<b>38368</b>	<b>38067</b>	<b>38227</b>	<b>38207</b>	<b>38267</b>	<b>38247</b>
38007HDZ/38007ZL	38047HDZ/38047ZL	38368HDZ/38368ZL	38067HDZ/38067ZL	38227HDZ/38227ZL	38207HDZ/38207ZL	38267HDZ/38267ZL	38247HDZ/38247ZL
38007INOX	38047INOX	38368INOX	38067INOX	38227INOX	38207INOX	38267INOX	38247INOX
<b>38008</b>	<b>38048</b>	<b>38369</b>	<b>38068</b>	<b>38228</b>	<b>38208</b>	<b>38228</b>	<b>38248</b>
38008HDZ/38008ZL	38048HDZ/38048ZL	38369HDZ/38369ZL	38068HDZ/38068ZL	38228HDZ/38228ZL	38208HDZ/38208ZL	38228HDZ/38228ZL	38248HDZ/38248ZL
38008INOX	38048INOX	38369INOX	38068INOX	38228INOX	38208INOX	38228INOX	38248INOX

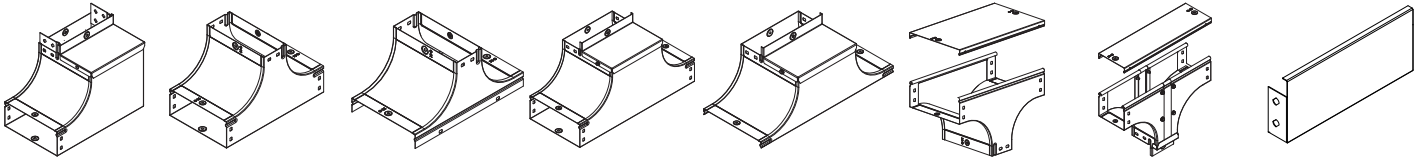
## Codes of accessories for sheet trays 80 mm high

### Versions:

version 1 – sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height H, mm	Width B, mm	Version	Variable horizontal bend CPO	CDV 90 external vertical bend	CDS 90 external vertical bend	CDSS 90 external vertical bend	CSDS 90 inner vertical bend
80	80	<b>version 1</b>	<b>36012</b>	<b>37371</b>	<b>37001</b>	<b>37021</b>	<b>37041</b>
		version 2/4	36012HDZL	37371HDZ/37371ZL	37001HDZ/37001ZL	37021HDZ/37021ZL	37041HDZ/37041ZL
		version 3	36012INOX	37371INOX	37001INOX	37021INOX	37041INOX
	100	<b>version 1</b>	<b>36013</b>	<b>37372</b>	<b>37002</b>	<b>37022</b>	<b>37042</b>
		version 2/4	36013HDZL	37372HDZ/37372ZL	37002HDZ/37002ZL	37022HDZ/37022ZL	37042HDZ/37042ZL
		version 3	36013INOX	37372INOX	37002INOX	37022INOX	37042INOX
	150	<b>version 1</b>	<b>36014</b>	<b>37373</b>	<b>37003</b>	<b>37023</b>	<b>37043</b>
		version 2/4	36014HDZL	37373HDZ/37373ZL	37003HDZ/37003ZL	37023HDZ/37023ZL	37043HDZ/37043ZL
		version 3	36014INOX	37373INOX	37003INOX	37023INOX	37043INOX
	200	<b>version 1</b>	<b>36015</b>	<b>37374</b>	<b>37004</b>	<b>37024</b>	<b>37044</b>
		version 2/4	36015HDZL	37374HDZ/37374ZL	37004HDZ/37004ZL	37024HDZ/37024ZL	37044HDZ/37044ZL
		version 3	36015INOX	37374INOX	37004INOX	37024INOX	37044INOX
	300	<b>version 1</b>	<b>36016</b>	<b>37375</b>	<b>37005</b>	<b>37025</b>	<b>37045</b>
		version 2/4	36016HDZL	37375HDZ/37375ZL	37005HDZ/37005ZL	37025HDZ/37025ZL	37045HDZ/37045ZL
		version 3	36016INOX	37375INOX	37005INOX	37025INOX	37045INOX
	400	<b>version 1</b>	–	<b>37376</b>	<b>37006</b>	<b>37026</b>	–
		version 2/4	–	37376HDZ/37376ZL	37006HDZ/37006ZL	37026HDZ/37026ZL	–
		version 3	–	37376INOX	37006INOX	37026INOX	–
	500	<b>version 1</b>	–	<b>37377</b>	<b>37007</b>	<b>37027</b>	–
		version 2/4	–	37377HDZ/37377ZL	37007HDZ/37007ZL	37027HDZ/37027ZL	–
		version 3	–	37377INOX	37007INOX	37027INOX	–
	600	<b>version 1</b>	–	<b>37370</b>	<b>37008</b>	<b>37028</b>	–
		version 2/4	–	37370HDZ/37370ZL	37008HDZ/37008ZL	37028HDZ/37028ZL	–
		version 3	–	37370INOX	37008INOX	37028INOX	–
Cover	80	<b>version 1</b>	–	<b>38281</b>	<b>38281</b>	<b>38281</b>	–
		version 2/4	–	38281HDZ/38281ZL	38281HDZ/38281ZL	38281HDZ/38281ZL	–
		version 3	–	38281INOX	38281INOX	38281INOX	–
	100	<b>version 1</b>	–	<b>38341</b>	<b>38282</b>	<b>38282</b>	–
		version 2/4	–	38341HDZ/38341ZL	38282HDZ/38282ZL	38282HDZ/38282ZL	–
		version 3	–	38341INOX	38282INOX	38282INOX	–
	150	<b>version 1</b>	–	<b>38342</b>	<b>38283</b>	<b>38283</b>	–
		version 2/4	–	38342HDZ/38342ZL	38283HDZ/38283ZL	38283HDZ/38283ZL	–
		version 3	–	38342INOX	38283INOX	38283INOX	–
	200	<b>version 1</b>	–	<b>38343</b>	<b>38284</b>	<b>38284</b>	–
		version 2/4	–	38343HDZ/38343ZL	38284HDZ/38284ZL	38284HDZ/38284ZL	–
		version 3	–	38343INOX	38284INOX	38284INOX	–
	300	<b>version 1</b>	–	<b>38344</b>	<b>38285</b>	<b>38285</b>	–
		version 2/4	–	38344HDZ/38344ZL	38285HDZ/38285ZL	38285HDZ/38285ZL	–
		version 3	–	38344INOX	38285INOX	38285INOX	–
	400	<b>version 1</b>	–	<b>38345</b>	<b>38286</b>	<b>38286</b>	–
		version 2/4	–	38345HDZ/38345ZL	38286HDZ/38286ZL	38286HDZ/38286ZL	–
		version 3	–	38345INOX	38286INOX	38286INOX	–
	500	<b>version 1</b>	–	<b>38346</b>	<b>38287</b>	<b>38287</b>	–
		version 2/4	–	38346HDZ/38346ZL	38287HDZ/38287ZL	38287HDZ/38287ZL	–
		version 3	–	38346INOX	38287INOX	38287INOX	–
	600	<b>version 1</b>	–	<b>38347</b>	<b>38288</b>	<b>38288</b>	–
		version 2/4	–	38347HDZ/38347ZL	38288HDZ/38288ZL	38288HDZ/38288ZL	–
		version 3	–	38347INOX	38288INOX	38288INOX	–



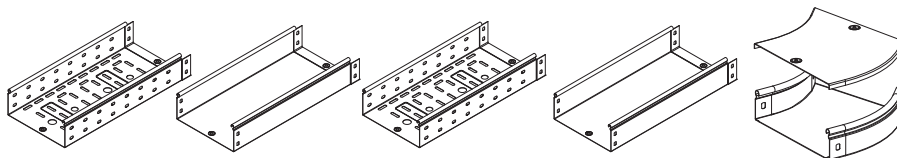
CSSS 90 inner vertical bend	Rising TS T-branch	TS branch-cover	Rising T-branch (flat) TSS	Branch-cover (flat) TSS	Vertical TD T-branch	Vertical side TDS T-branch	TC solid end cap
<b>37061</b>	<b>37201</b>	–	<b>37221</b>	–	<b>37101</b>	<b>37161</b>	<b>37261</b>
37061HDZ/37061ZL	37201HDZ/37201ZL	–	37221HDZ/37221ZL	–	37101HDZ/37101ZL	37161HDZ/37161ZL	37261HDZL
37061INOX	37201INOX	–	37221INOX	–	37101INOX	37161INOX	37261INOX
<b>37062</b>	<b>37202</b>	<b>37242</b>	<b>37222</b>	<b>37232</b>	<b>37102</b>	<b>37162</b>	<b>37262</b>
37062HDZ/37062ZL	37202HDZ/37202ZL	37242HDZ/37242ZL	37222HDZ/37222ZL	37232HDZ/37232ZL	37102HDZ/37102ZL	37162HDZ/37162ZL	37262HDZL
37062INOX	37202INOX	37242INOX	37222INOX	37232INOX	37102INOX	37162INOX	37262INOX
<b>37063</b>	<b>37203</b>	<b>37243</b>	<b>37223</b>	<b>37233</b>	<b>37103</b>	<b>37163</b>	<b>37263</b>
37063HDZ/37063ZL	37203HDZ/37203ZL	37243HDZ/37243ZL	37223HDZ/37223ZL	37233HDZ/37233ZL	37103HDZ/37103ZL	37163HDZ/37163ZL	37263HDZL
37063INOX	37203INOX	37243INOX	37223INOX	37233INOX	37103INOX	37163INOX	37263INOX
<b>37064</b>	<b>37204</b>	<b>37244</b>	<b>37224</b>	<b>37234</b>	<b>37104</b>	<b>37164</b>	<b>37264</b>
37064HDZ/37064ZL	37204HDZ/37204ZL	37244HDZ/37244ZL	37224HDZ/37224ZL	37234HDZ/37234ZL	37104HDZ/37104ZL	37164HDZ/37164ZL	37264HDZL
37064INOX	37204INOX	37244INOX	37224INOX	37234INOX	37104INOX	37164INOX	37264INOX
<b>37065</b>	<b>37205</b>	<b>37245</b>	<b>37225</b>	<b>37235</b>	<b>37105</b>	<b>37165</b>	<b>37265</b>
37065HDZ/37065ZL	37205HDZ/37205ZL	37245HDZ/37245ZL	37225HDZ/37225ZL	37235HDZ/37235ZL	37105HDZ/37105ZL	37165HDZ/37165ZL	37265HDZL
37065INOX	37205INOX	37245INOX	37225INOX	37235INOX	37105INOX	37165INOX	37265INOX
–	–	<b>37206</b>	–	<b>37226</b>	<b>37106</b>	<b>37166</b>	<b>37266</b>
–	–	37206HDZ/37206ZL	–	37226HDZ/37226ZL	37106HDZ/37106ZL	37166HDZ/37166ZL	37266HDZL
–	–	37206INOX	–	37226INOX	37106INOX	37166INOX	37266INOX
–	–	<b>37207</b>	–	<b>37227</b>	<b>37107</b>	<b>37167</b>	<b>37267</b>
–	–	37207HDZ/37207ZL	–	37227HDZ/37227ZL	37107HDZ/37107ZL	37167HDZ/37167ZL	37267HDZL
–	–	37207INOX	–	37227INOX	37107INOX	37167INOX	37267INOX
–	–	–	–	<b>37228</b>	<b>37108</b>	<b>37168</b>	–
–	–	–	–	37228HDZ/37228ZL	37108HDZ/37108ZL	37168HDZ/37168ZL	–
–	–	–	–	37228INOX	37108INOX	37168INOX	–
–	–	–	–	–	<b>38301</b>	<b>38301</b>	–
–	–	–	–	–	38301HDZ	38301HDZ	–
–	–	–	–	–	38301INOX	38301INOX	–
–	–	–	–	–	<b>38302</b>	<b>38322</b>	–
–	–	–	–	–	38301HDZ/38301ZL	38301HDZ/38301ZL	–
–	–	–	–	–	38302INOX	38322INOX	–
–	–	–	–	–	<b>38303</b>	<b>38323</b>	–
–	–	–	–	–	38303HDZ/38303ZL	38323HDZ/38323ZL	–
–	–	–	–	–	38303INOX	38323INOX	–
–	–	–	–	–	<b>38304</b>	<b>38324</b>	–
–	–	–	–	–	38304HDZ/38304ZL	38324HDZ/38324ZL	–
–	–	–	–	–	38304INOX	38324INOX	–
–	–	–	–	–	<b>38305</b>	<b>38325</b>	–
–	–	–	–	–	38305HDZ/38305ZL	38325HDZ/38325ZL	–
–	–	–	–	–	38305INOX	38325INOX	–
–	–	–	–	–	<b>38306</b>	<b>38326</b>	–
–	–	–	–	–	38306HDZ/38306ZL	38326HDZ/38326ZL	–
–	–	–	–	–	38306INOX	38326INOX	–
–	–	–	–	–	<b>38307</b>	<b>38327</b>	–
–	–	–	–	–	38307HDZ/38307ZL	38327HDZ/38327ZL	–
–	–	–	–	–	38307INOX	38327INOX	–
–	–	–	–	–	<b>38309</b>	<b>38328</b>	–
–	–	–	–	–	38309HDZ/38309ZL	38328HDZ/38328ZL	–
–	–	–	–	–	38309INOX	38328INOX	–



## Codes of sheet trays and accessories 100 mm high

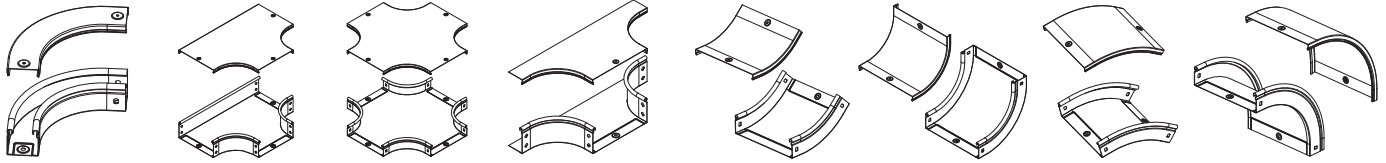
### Versions:

version 1 – sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height H, mm	Width B, mm	Version	Perfor. tray L=3000 mm	Non-perfor. tray L=3000 mm	Perfor. tray L=2000 mm	Non-perfor. tray L=2000 mm	CPO 45 horizontal bend 45°
100	100	<b>version 1</b>	<b>35341</b>	<b>35101</b>	<b>35331</b>	<b>35111</b>	<b>36101</b>
		version 2/4	35341HDZ/35341ZL	35101HDZ/35101ZL	35331HDZ/35331ZL	35111HDZ/35111ZL	36101HDZ/36101ZL
		version 3	35341INOX	35101INOX	35331INOX	35111INOX	36101INOX
	150	<b>version 1</b>	<b>35342</b>	<b>35102</b>	<b>35332</b>	<b>35112</b>	<b>36102</b>
		version 2/4	35342HDZ/35342ZL	35102HDZ/35102ZL	35332HDZ/35332ZL	35112HDZ/35112ZL	36102HDZ/36102ZL
		version 3	35342INOX	35102INOX	35332INOX	35112INOX	36102INOX
	200	<b>version 1</b>	<b>35343</b>	<b>35103</b>	<b>35333</b>	<b>35113</b>	<b>36103</b>
		version 2/4	35343HDZ/35343ZL	35103HDZ/35103ZL	35333HDZ/35333ZL	35113HDZ/35113ZL	36103HDZ/36103ZL
		version 3	35343INOX	35103INOX	35333INOX	35113INOX	36103INOX
	300	<b>version 1</b>	<b>35344</b>	<b>35104</b>	<b>35334</b>	<b>35114</b>	<b>36104</b>
		version 2/4	35344HDZ/35344ZL	35104HDZ/35104ZL	35334HDZ/35334ZL	35114HDZ/35114ZL	36104HDZ/36104ZL
		version 3	35344INOX	35104INOX	35334INOX	35114INOX	36104INOX
	400	<b>version 1</b>	<b>35345</b>	<b>35105</b>	<b>35335</b>	<b>35115</b>	<b>36105</b>
		version 2/4	35345HDZ/35345ZL	35105HDZ/35105ZL	35335HDZ/35335ZL	35115HDZ/35115ZL	36105HDZ/36105ZL
		version 3	35345INOX	35105INOX	35335INOX	35115INOX	36105INOX
	500	<b>version 1</b>	<b>35346</b>	<b>35106</b>	<b>35336</b>	<b>35116</b>	<b>36106</b>
		version 2/4	35346HDZ/35346ZL	35106HDZ/35106ZL	35336HDZ/35336ZL	35116HDZ/35116ZL	36106HDZ/36106ZL
		version 3	35346INOX	35106INOX	35336INOX	35116INOX	36106
	600	<b>version 1</b>	<b>35347</b>	<b>35107</b>	–	–	<b>36107</b>
		version 2/4	35347HDZ/35347ZL	35107HDZ/35107ZL	–	–	36107HDZ/36107ZL
		version 3	35347INOX	35107INOX	–	–	36107INOX
Cover	100	<b>version 1</b>	<b>35522</b>	<b>35522</b>	<b>35512</b>	<b>35522</b>	<b>38022</b>
		version 2/4	35522HDZ/35522ZL	35522HDZ/35522ZL	35512HDZ/35512ZL	35522HDZ/35522ZL	38022HDZ/38022ZL
		version 3	35522INOX	35522INOX	35512INOX	35522INOX	38022INOX
	150	<b>version 1</b>	<b>35523</b>	<b>35523</b>	<b>35513</b>	<b>35523</b>	<b>38023</b>
		version 2/4	35523HDZ/35523ZL	35523HDZ/35523ZL	35513HDZ/35513ZL	35523HDZ/35523ZL	38023HDZ/38023ZL
		version 3	35523INOX	35523INOX	35513INOX	35523INOX	38023INOX
	200	<b>version 1</b>	<b>35524</b>	<b>35524</b>	<b>35514</b>	<b>35524</b>	<b>38024</b>
		version 2/4	35524HDZ/35524ZL	35524HDZ/35524ZL	35514HDZ/35514ZL	35524HDZ/35524ZL	38024HDZ/38024ZL
		version 3	35524INOX	35524INOX	35514INOX	35524INOX	38024INOX
	300	<b>version 1</b>	<b>35525</b>	<b>35525</b>	<b>35515</b>	<b>35525</b>	<b>38025</b>
		version 2/4	35525HDZ/35525ZL	35525HDZ/35525ZL	35515HDZ/35515ZL	35525HDZ/35525ZL	38025HDZ/38025ZL
		version 3	35525INOX	35525INOX	35515INOX	35525INOX	38025INOX
	400	<b>version 1</b>	<b>35526</b>	<b>35526</b>	<b>35516</b>	<b>35526</b>	<b>38026</b>
		version 2/4	35526HDZ/35526ZL	35526HDZ/35526ZL	35516HDZ/35516ZL	35526HDZ/35526ZL	38026HDZ/38026ZL
		version 3	35526INOX	35526INOX	35516INOX	35526INOX	38026INOX
	500	<b>version 1</b>	<b>35527</b>	<b>35527</b>	<b>35517</b>	<b>35527</b>	<b>38027</b>
		version 2/4	35527HDZ/35527ZL	35527HDZ/35527ZL	35517HDZ/35517ZL	35527HDZ/35527ZL	38027HDZ/38027ZL
		version 3	35527INOX	35527INOX	35517INOX	35527INOX	38027INOX
	600	<b>version 1</b>	<b>35528</b>	<b>35528</b>	–	<b>35528</b>	<b>38028</b>
		version 2/4	35528HDZ/35528ZL	35528HDZ/35528ZL	–	35528HDZ/35528ZL	38028HDZ/38028ZL
		version 3	35528INOX	35528INOX	–	35528INOX	38028INOX

## Table of codes

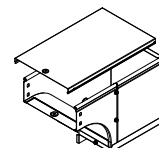
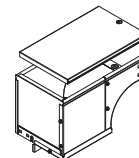
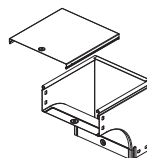
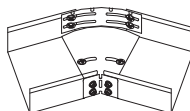


CPO 90 horizontal bend 90°	Horizontal DPT T-branch	DPX X-branch	DL T-branch	CS 45 inner vertical bend	CS 90 inner vertical bend	CD 45 external vertical bend	CD 90 external vertical bend
<b>36041</b>	<b>36161</b>	<b>36221</b>	<b>36263</b>	<b>36761</b>	<b>36701</b>	<b>36881</b>	<b>36821</b>
36041HDZ/36041ZL	36161HDZ/36161ZL	36221HDZ/36221ZL	36263HDZ/36263ZL	36761HDZ/36761ZL	36701HDZ/36701ZL	36881HDZ/36881ZL	36821HDZ/36821ZL
36041INOX	36161INOX	36221INOX	36263INOX	36761INOX	36701INOX	36881INOX	36821INOX
<b>36042</b>	<b>36162</b>	<b>36222</b>	<b>36264</b>	<b>36762</b>	<b>36702</b>	<b>36882</b>	<b>36822</b>
36042HDZ/36042ZL	36162HDZ/36162ZL	36222HDZ/36222ZL	36264HDZ/36264ZL	36762HDZ/36762ZL	36702HDZ/36702ZL	36882HDZ/36882ZL	36822HDZ/36822ZL
36042INOX	36162INOX	36222INOX	36264INOX	36762INOX	36702INOX	36882INOX	36822INOX
<b>36043</b>	<b>36163</b>	<b>36223</b>	<b>36265</b>	<b>36763</b>	<b>36703</b>	<b>36883</b>	<b>36823</b>
36043HDZ/36043ZL	36163HDZ/36163ZL	36223HDZ/36223ZL	36265HDZ/36265ZL	36763HDZ/36763ZL	36703HDZ/36703ZL	36883HDZ/36883ZL	36823HDZ/36823ZL
36043INOX	36163INOX	36223INOX	36265INOX	36763INOX	36703INOX	36883INOX	36823INOX
<b>36044</b>	<b>36164</b>	<b>36224</b>	<b>36266</b>	<b>36764</b>	<b>36704</b>	<b>36884</b>	<b>36824</b>
36044HDZ/36044ZL	36164HDZ/36164ZL	36224HDZ/36224ZL	36266HDZ/36266ZL	36764HDZ/36764ZL	36704HDZ/36704ZL	36884HDZ/36884ZL	36824HDZ/36824ZL
36044INOX	36164INOX	36224INOX	36266INOX	36764INOX	36704INOX	36884INOX	36824INOX
<b>36045</b>	<b>36165</b>	<b>36225</b>	<b>36267</b>	<b>36765</b>	<b>36705</b>	<b>36885</b>	<b>36825</b>
36045HDZ/36045ZL	36165HDZ/36165ZL	36225HDZ/36225ZL	36267HDZ/36267ZL	36765HDZ/36765ZL	36705HDZ/36705ZL	36885HDZ/36885ZL	36825HDZ/36825ZL
36045INOX	36165INOX	36225INOX	36267INOX	36765INOX	36705INOX	36885INOX	36825INOX
<b>36046</b>	<b>36166</b>	<b>36226</b>	<b>36268</b>	<b>36766</b>	<b>36706</b>	<b>36886</b>	<b>36826</b>
36046HDZ/36046ZL	36166HDZ/36166ZL	36226HDZ/36226ZL	36268HDZ/36268ZL	36766HDZ/36766ZL	36706HDZ/36706ZL	36886HDZ/36886ZL	36826HDZ/36826ZL
36046INOX	36166INOX	36226INOX	36268INOX	36766INOX	36706INOX	36886INOX	36826INOX
<b>36047</b>	<b>36167</b>	<b>36227</b>	<b>36269</b>	<b>36767</b>	<b>36707</b>	<b>36887</b>	<b>36827</b>
36047HDZ/36047ZL	36167HDZ/36167ZL	36227HDZ/36227ZL	36269HDZ/36269ZL	36767HDZ/36767ZL	36707HDZ/36707ZL	36887HDZ/36887ZL	36827HDZ/36827ZL
36047INOX	36167INOX	36227INOX	36269INOX	36767INOX	36707INOX	36887INOX	36827INOX
<b>38002</b>	<b>38042</b>	<b>38062</b>	<b>38363</b>	<b>38222</b>	<b>38202</b>	<b>38262</b>	<b>38242</b>
38002HDZ/38002ZL	38042HDZ/38042ZL	38062HDZ/38062ZL	38363HDZ/38363ZL	38222HDZ/38222ZL	38202HDZ/38202ZL	38262HDZ/38262ZL	38242HDZ/38242ZL
38002INOX	38042INOX	38062INOX	38363INOX	38222INOX	38202INOX	38262INOX	38242INOX
<b>38003</b>	<b>38043</b>	<b>38063</b>	<b>38364</b>	<b>38223</b>	<b>38203</b>	<b>38263</b>	<b>38243</b>
38003HDZ/38003ZL	38043HDZ/38043ZL	38063HDZ/38063ZL	38364HDZ/38364ZL	38223HDZ/38223ZL	38203HDZ/38203ZL	38263HDZ/38263ZL	38243HDZ/38243ZL
38003INOX	38043INOX	38063INOX	38364INOX	38223INOX	38203INOX	38263INOX	38243INOX
<b>38004</b>	<b>38044</b>	<b>38064</b>	<b>38365</b>	<b>38224</b>	<b>38204</b>	<b>38264</b>	<b>38244</b>
38004HDZ/38004ZL	38044HDZ/38044ZL	38064HDZ/38064ZL	38365HDZ/38365ZL	38224HDZ/38224ZL	38204HDZ/38204ZL	38264HDZ/38264ZL	38244HDZ/38244ZL
38004INOX	38044INOX	38064INOX	38365INOX	38224INOX	38204INOX	38264INOX	38244INOX
<b>38005</b>	<b>38045</b>	<b>38065</b>	<b>38366</b>	<b>38225</b>	<b>38205</b>	<b>38265</b>	<b>38245</b>
38005HDZ/38005ZL	38045HDZ/38045ZL	38065HDZ/38065ZL	38366HDZ/38366ZL	38225HDZ/38225ZL	38205HDZ/38205ZL	38265HDZ/38265ZL	38245HDZ/38245ZL
38005INOX	38045INOX	38065INOX	38366INOX	38225INOX	38205INOX	38265INOX	38245INOX
<b>38006</b>	<b>38046</b>	<b>38066</b>	<b>38367</b>	<b>38226</b>	<b>38206</b>	<b>38266</b>	<b>38246</b>
38006HDZ/38006ZL	38046HDZ/38046ZL	38066HDZ/38066ZL	38367HDZ/38367ZL	38226HDZ/38226ZL	38206HDZ/38206ZL	38266HDZ/38266ZL	38246HDZ/38246ZL
38006INOX	38046INOX	38066INOX	38367INOX	38226INOX	38206INOX	38266INOX	38246INOX
<b>38007</b>	<b>38047</b>	<b>38067</b>	<b>38368</b>	<b>38227</b>	<b>38207</b>	<b>38267</b>	<b>38247</b>
38006HDZ/38006ZL	38046HDZ/38046ZL	38066HDZ/38066ZL	38367HDZ/38367ZL	38226HDZ/38226ZL	38206HDZ/38206ZL	38266HDZ/38266ZL	38246HDZ/38246ZL
38007INOX	38047INOX	38067INOX	38368INOX	38227INOX	38207INOX	38267INOX	38247INOX
<b>38008</b>	<b>38048</b>	<b>38068</b>	<b>38369</b>	<b>38228</b>	<b>38208</b>	<b>38228</b>	<b>38248</b>
38008HDZ/38008ZL	38048HDZ/38048ZL	38068HDZ/38068ZL	38369HDZ/38369ZL	38228HDZ/38228ZL	38208HDZ/38208ZL	38228HDZ/38228ZL	38248HDZ/38248ZL
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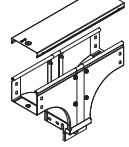
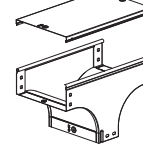
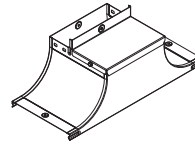
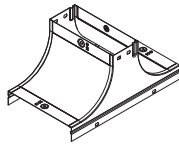
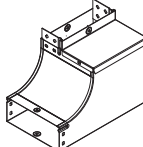
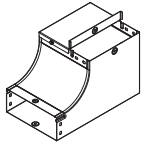
## Codes of accessories for sheet trays 100 mm high

### Versions:

version 1 – sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.

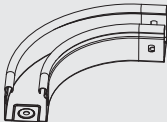

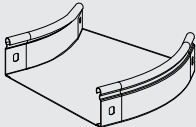
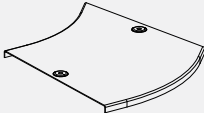


Height H, mm	Width B, mm	Version	Variable horizontal bend CPO	CDV 90 external vertical bend	CDS 90 external vertical bend	CDS 90 external vertical bend
100	100	<b>version 1</b>	<b>36017</b>	<b>37472</b>	<b>37012</b>	<b>37122</b>
		version 2/4	36017HDZL	37472HDZ/37472ZL	37012HDZ/37012ZL	37122HDZ/37122ZL
		version 3	36017INOX	37472INOX	37012INOX	37122INOX
	150	<b>version 1</b>	<b>36018</b>	<b>37473</b>	<b>37013</b>	<b>37123</b>
		version 2/4	36018HDZL	37473HDZ/37473ZL	37013HDZ/37013ZL	37123HDZ/37123ZL
		version 3	36018INOX	37473INOX	37013INOX	37123INOX
	200	<b>version 1</b>	<b>36019</b>	<b>37474</b>	<b>37014</b>	<b>37124</b>
		version 2/4	36019HDZL	37474HDZ/37474ZL	37014HDZ/37014ZL	37124HDZ/37124ZL
		version 3	36019INOX	37474INOX	37014INOX	37124INOX
	300	<b>version 1</b>	<b>36020</b>	<b>37475</b>	<b>37015</b>	<b>37125</b>
		version 2/4	36020HDZL	37475HDZ/37475ZL	37015HDZ/37015ZL	37125HDZ/37125ZL
		version 3	36020INOX	37475INOX	37015INOX	37125INOX
	400	<b>version 1</b>	–	<b>37476</b>	<b>37016</b>	<b>37126</b>
		version 2/4	–	37476HDZ/37476ZL	37016HDZ/37016ZL	37126HDZ/37126ZL
		version 3	–	37476INOX	37016INOX	37126INOX
	500	<b>version 1</b>	–	<b>37477</b>	<b>37017</b>	<b>37127</b>
		version 2/4	–	37477HDZ/37477ZL	37017HDZ/37017ZL	37127HDZ/37127ZL
		version 3	–	37477INOX	37017INOX	37127INOX
	600	<b>version 1</b>	–	<b>37478</b>	<b>37018</b>	<b>37128</b>
		version 2/4	–	37478HDZ/37478ZL	37018HDZ/37018ZL	37128HDZ/37128ZL
		version 3	–	37478INOX	37018INOX	37128INOX
Cover	100	<b>version 1</b>	–	<b>38341</b>	<b>38282</b>	<b>38282</b>
		version 2/4	–	38341HDZ/38341ZL	38282HDZ/38282ZL	38282HDZ/38282ZL
		version 3	–	38341INOX	38282INOX	38282INOX
	150	<b>version 1</b>	–	<b>38342</b>	<b>38283</b>	<b>38283</b>
		version 2/4	–	38342HDZ/38342ZL	38283HDZ/38283ZL	38283HDZ/38283ZL
		version 3	–	38342INOX	38283INOX	38283INOX
	200	<b>version 1</b>	–	<b>38343</b>	<b>38284</b>	<b>38284</b>
		version 2/4	–	38343HDZ/38343ZL	38284HDZ/38284ZL	38284HDZ/38284ZL
		version 3	–	38343INOX	38284INOX	38284INOX
	300	<b>version 1</b>	–	<b>38344</b>	<b>38285</b>	<b>38285</b>
		version 2/4	–	38344HDZ/38344ZL	38285HDZ/38285ZL	38285HDZ/38285ZL
		version 3	–	38344INOX	38285INOX	38285INOX
	400	<b>version 1</b>	–	<b>38345</b>	<b>38286</b>	<b>38286</b>
		version 2/4	–	38345HDZ/38345ZL	38286HDZ/38286ZL	38286HDZ/38286ZL
		version 3	–	38345INOX	38286INOX	38286INOX
	500	<b>version 1</b>	–	<b>38346</b>	<b>38287</b>	<b>38287</b>
		version 2/4	–	38346HDZ/38346ZL	38287HDZ/38287ZL	38287HDZ/38287ZL
		version 3	–	38346INOX	38287INOX	38287INOX
	600	<b>version 1</b>	–	<b>38347</b>	<b>38288</b>	<b>38288</b>
		version 2/4	–	38347HDZ/38347ZL	38288HDZ/38288ZL	38288HDZ/38288ZL
		version 3	–	38347INOX	38288INOX	38288INOX

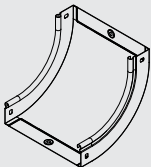
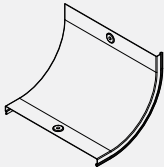
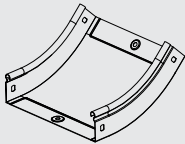
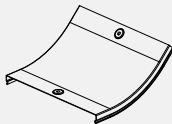


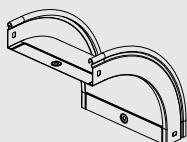
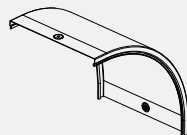
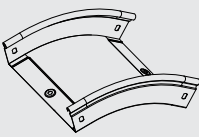
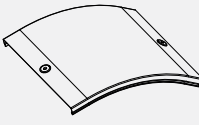
CSSD 90 inner vertical bend	CSSS 90 inner vertical bend	TS branch-cover	TSS branch-cover	Vertical TD T-branch	Vertical side TDS T-branch
<b>37142</b>	<b>37072</b>	<b>37342</b>	<b>37332</b>	<b>37112</b>	<b>37172</b>
37142HDZ/37142ZL	37072HDZ/37072ZL	37342HDZ/37342ZL	37332HDZ/37332ZL	37112HDZ/37112ZL	37172HDZ/37172ZL
37142INOX	37072INOX	37342INOX	37332INOX	37112INOX	37172INOX
<b>37143</b>	<b>37073</b>	<b>37343</b>	<b>37333</b>	<b>37113</b>	<b>37173</b>
37143HDZ/37143ZL	37073HDZ/37073ZL	37343HDZ/37343ZL	37333HDZ/37333ZL	37113HDZ/37113ZL	37173HDZ/37173ZL
37143INOX	37073INOX	37343INOX	37333INOX	37113INOX	37173INOX
<b>37144</b>	<b>37074</b>	<b>37344</b>	<b>37334</b>	<b>37114</b>	<b>37174</b>
37144HDZ/37144ZL	37074HDZ/37074ZL	37344HDZ/37344ZL	37334HDZ/37334ZL	37114HDZ/37114ZL	37174HDZ/37174ZL
37144INOX	37074INOX	37344INOX	37334INOX	37114INOX	37174INOX
<b>37145</b>	<b>37075</b>	<b>37345</b>	<b>37335</b>	<b>37115</b>	<b>37175</b>
37145HDZ/37145ZL	37075HDZ/37075ZL	37345HDZ/37345ZL	37335HDZ/37335ZL	37115HDZ/37115ZL	37175HDZ/37175ZL
37145INOX	37075INOX	37345INOX	37335INOX	37115INOX	37175INOX
<b>37146</b>	<b>37076</b>	<b>37346</b>	<b>37336</b>	<b>37116</b>	<b>37176</b>
37146HDZ/37146ZL	37076HDZ/37076ZL	37346HDZ/37346ZL	37336HDZ/37336ZL	37116HDZ/37116ZL	37176HDZ/37176ZL
37146INOX	37076INOX	37346INOX	37336INOX	37116INOX	37176INOX
<b>37147</b>	<b>37077</b>	<b>37347</b>	<b>37337</b>	<b>37117</b>	<b>37177</b>
37147HDZ/37147ZL	37077HDZ/37077ZL	37347HDZ/37347ZL	37337HDZ/37337ZL	37117HDZ/37117ZL	37177HDZ/37177ZL
37147INOX	37077INOX	37347INOX	37337INOX	37117INOX	37177INOX
<b>37148</b>	<b>37078</b>	<b>37348</b>	<b>37338</b>	<b>37118</b>	<b>37178</b>
37148HDZ/37148ZL	37078HDZ/37078ZL	37348HDZ/37348ZL	37338HDZ/37338ZL	37118HDZ/37118ZL	37178HDZ/37178ZL
37148INOX	37078INOX	37348INOX	37338INOX	37118INOX	37178INOX
-	-	-	-	<b>38302</b>	<b>38322</b>
-	-	-	-	38302HDZ/38302ZL	38322HDZ/38322ZL
				38302INOX	38322INOX
-	-	-	-	<b>38303</b>	<b>38323</b>
-	-	-	-	38303HDZ/38303ZL	38323HDZ/38323ZL
				38303INOX	38323INOX
-	-	-	-	<b>38304</b>	<b>38324</b>
-	-	-	-	38304HDZ/38304ZL	38324HDZ/38324ZL
-	-	-	-	38304INOX	38324INOX
-	-	-	-	<b>38305</b>	<b>38325</b>
-	-	-	-	38305HDZ/38305ZL	38325HDZ/38325ZL
				38305INOX	38325INOX
-	-	-	-	<b>38306</b>	<b>38326</b>
-	-	-	-	38306HDZ/38306ZL	38326HDZ/38326ZL
				38306INOX	38326INOX
-	-	-	-	<b>38307</b>	<b>38327</b>
-	-	-	-	38307HDZ/38307ZL	38327HDZ/38327ZL
				38307INOX	38327INOX
-	-	-	-	<b>38309</b>	<b>38328</b>
-	-	-	-	38309HDZ/38309ZL	38328HDZ/38328ZL
				38309INOX	38328INOX

## Table of picking with installation elements

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>CPO 90 horizontal bend 90°</b></p>	50	50	36000	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4
		100	36002			2
		150	36003			12
		200	36004			12
		300	36005			
		400	36006			
		500	36007			
	80	80	36021	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4
		100	36022			2
		150	36023			20
		200	36024			20
		300	36025			
		400	36026			
		500	36027			
	100	100	36041	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4
		150	36042			2
		200	36043			20
		300	36044			20
		400	36045			
 <p><b>Cover for horizontal bend CPO 90</b></p>	15	50	38000	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2
		80	38001			4
		100	38002			
		150	38003			
		200	38004			
		300	38005			
		400	38006			
 <p><b>CPO 45 horizontal bend 45°</b></p>	50	50	36060	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4
		100	36062			2
		150	36063			12
		200	36064			12
		300	36065			
		400	36066			
		500	36067			
	80	80	36081	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4
		100	36082			2
		150	36083			20
		200	36084			20
		300	36085			
		400	36086			
		500	36087			
	100	100	36101	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4
		150	36102			2
		200	36103			20
		300	36104			20
		400	36105			
 <p><b>Cover for horizontal bend CPO 45</b></p>	15	50	38020	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2
		80	38021			4
		100	38022			
		150	38023			
		200	38024			
		300	38025			
		400	38026			
		500	38027			

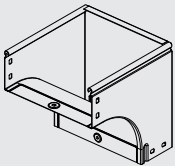
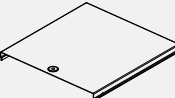
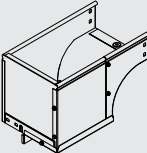
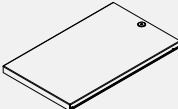
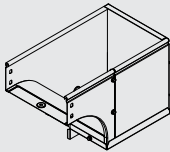
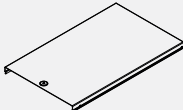
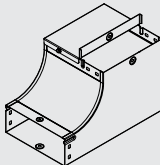
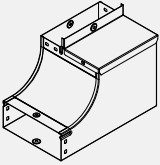
## Table of picking with installation elements

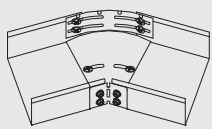
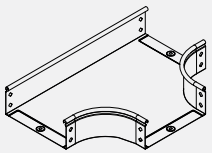
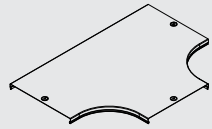
Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>CS 90 inner vertical bend</b></p>	50	50	36660	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		100	36662			
		150	36663			
		200	36664			
		300	36665			
		400	36666			
	80	500	36667	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		80	36681			
		100	36682			
		150	36683			
		200	36684			
		300	36685			
	100	400	36686			
		500	36687			
		100	36701	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		150	36702			
		200	36703			
		300	36704			
		400	36705			
		500	36706			
 <p><b>Cover for inner vertical bend CS 90</b></p>	15	50	38200	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		80	38201			
		100	38202			
		150	38203			
		200	38204			
		300	38205			
		400	38206			
		500	38207			
 <p><b>CS 45 inner vertical bend</b></p>	50	50	36720	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		100	36722			
		150	36723			
		200	36724			
		300	36725			
		400	36726			
	80	500	36727	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		80	36741			
		100	36742			
		150	36743			
		200	36744			
		300	36745			
	100	400	36746	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		500	36747			
		100	36761			
		150	36762			
		200	36763			
		300	36764			
 <p><b>Cover for inner vertical bend CS 45</b></p>	15	400	36765			
		500	36766			
		50	38220	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		80	38221			
		100	38222			
		150	38223			
		200	38224			
		300	38225			
		400	38226			
		500	38227			

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>CD 90 external vertical bend</b></p>	50	50	36780	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		100	36782			
		150	36783			
		200	36784			
		300	36785			
		400	36786			
		500	36787			
	80	80	36801	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		100	36802			
		150	36803			
		200	36804			
		300	36805			
		400	36806			
		500	36807			
	100	100	36821	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		150	36822			
		200	36823			
		300	36824			
		400	36825			
		500	36826			
 <p><b>Cover for external vertical bend CD 90</b></p>	15	50	38240	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		80	38241			
		100	38242			
		150	38243			
		200	38244			
		300	38245			
		400	38246			
		500	38247			
 <p><b>CD 45 external vertical bend</b></p>	50	50	36840	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		100	36842			
		150	36843			
		200	36844			
		300	36845			
		400	36846			
		500	36847			
	80	80	36861	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		100	36862			
		150	36863			
		200	36864			
		300	36865			
		400	36866			
		500	36867			
	100	100	36881	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		150	36882			
		200	36883			
		300	36884			
		400	36885			
		500	36886			
 <p><b>Cover for external vertical bend CD 45</b></p>	15	50	38260	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		80	38261			
		100	38262			
		150	38263			
		200	38264			
		300	38265			
		400	38266			
		500	38267			

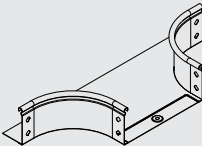
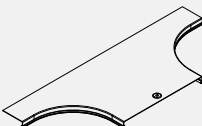
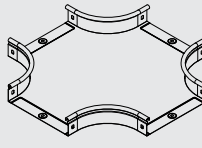
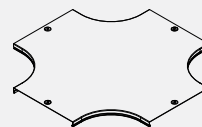


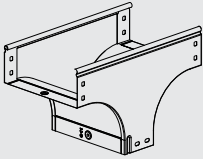

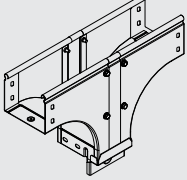
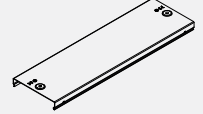
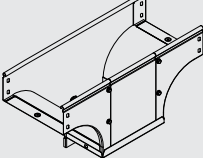
## Table of picking with installation elements

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <b>CDV 90 external vertical bend</b>	80	80	37371	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		100	37372			
		150	37373			
		200	37374			
		300	37375			
		400	37376			
		500	37377			
 <b>Cover for external vertical bend CDV 90</b>	80	80	38281	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	1 2
		100	38341			
		150	38342			
		200	38343			
		300	38344			
		400	38345			
		500	38346			
 <b>CDSD 90 external vertical bend</b>	80	80	37001	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		100	37002			
		150	37003			
		200	37004			
		300	37005			
		400	37006			
		500	37007			
 <b>Cover for external vertical bend CDSD 90</b>	80	80	38281	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	1 2
		100	38282			
		150	38283			
		200	38284			
		300	38285			
		400	38286			
		500	38287			
 <b>CDSS 90 external vertical bend</b>	80	80	37021	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		100	37022			
		150	37023			
		200	37024			
		300	37025			
		400	37026			
		500	37027			
 <b>Cover for external vertical bend CDSS 90</b>	80	80	38281	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	1 2
		100	38282			
		150	38283			
		200	38284			
		300	38285			
		400	38286			
		500	38287			
 <b>CSSD 90 inner vertical bend</b>	80	80	37041	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37303 37501 CM010610 CM100600 CM030508	4 4 20 20 4
		100	37042			
		150	37043			
		200	37044			
		300	37045			
		-	-			
		-	-			
 <b>CSSS 90 inner vertical bend</b>	80	80	37061	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37303 37501 CM010610 CM100600 CM030508	4 4 20 20 4
		100	37062			
		150	37063			
		200	37064			
		300	37065			
		-	-			
		-	-			

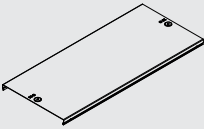
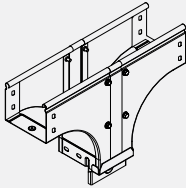
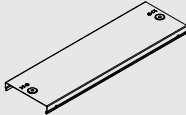
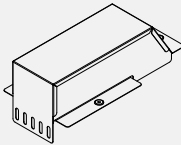
Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>Variable horizontal bend CPO</b></p>	50	100	36008	Square neck bolt M6x10, Hexagon nut M6 with serrate flange	CM010610 CM100600	6 6
		150	36009			
		200	36010			
		300	36011			
	80	80	36012	Square neck bolt M6x10, Hexagon nut M6 with serrate flange	CM010610 CM100600	10 10
		100	36013			
		150	36014			
		200	36015			
	100	300	36016			
		100	36017	Square neck bolt M6x10, Hexagon nut M6 with serrate flange	CM010610 CM100600	10 10
		150	36018			
		200	36019			
		300	36020			
 <p><b>Horizontal DPT T-branch</b></p>	50	50	36120	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	6 3 18 18
		100	36122			
		150	36123			
		200	36124			
		300	36125			
		400	36126			
	80	500	36127	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	6 3 30 30
		80	36141			
		100	36142			
		150	36143			
		200	36144			
		300	36145			
	100	400	36146	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	6 3 30 30
		500	36147			
		100	36161			
		150	36162			
		200	36163			
		300	36164			
 <p><b>Cover for horizontal DPT T-branch</b></p>	50	400	36165	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	3 6
		500	36166			
		50	38040			
		80	38041			
		100	38042			
		150	38043			
		200	38044			
		300	38045			
		400	38046			
		500	38047			

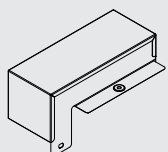
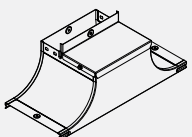
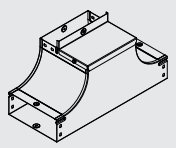
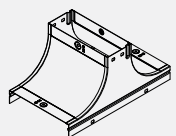
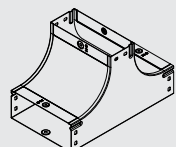
## Table of picking with installation elements

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <b>DL T-branch</b>	50	50	36233	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	2 1 8 8
		100	36235			
		150	36236			
		200	36237			
		300	36238			
		400	36239			
	80	500	36240	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	2 1 14 14
		80	36249			
		100	36250			
		150	36251			
		200	36252			
		300	36253			
	100	400	36254	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	2 1 14 14
		500	36255			
		100	36263			
		150	36264			
		200	36265			
		300	36266			
 <b>Cover for DL T-branch</b>	50	400	36267	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		500	36268			
		50	38361			
		80	38362			
		100	38363			
		150	38364			
		200	38365			
 <b>Horizontal DPX cross branch</b>	50	300	38366	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	8 4 24 24
		400	38367			
		500	38368			
		50	36180			
		100	36182			
		150	36183			
	80	200	36184	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	8 4 40 40
		300	36185			
		400	36186			
		500	36187			
		80	36201			
		100	36202			
	100	150	36203	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	8 4 40 40
		200	36204			
		300	36205			
		400	36206			
		500	36207			
		100	36221			
 <b>Cover for horizontal DPX cross branch</b>	50	150	36222	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	4 8
		200	36223			
		300	36224			
		400	36225			
		500	36226			
		50	38060			
		80	38061			
		100	38062			
		150	38063			
		200	38064			
		300	38065			
		400	38066			
		500	38067			

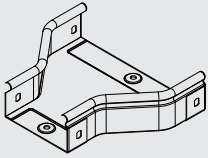
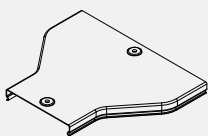
Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 Vertical TD T-branch	80	80	37101	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	6 3 30 30
		100	37102			
		150	37103			
		200	37104			
		300	37105			
		400	37106			
		500	37107			
		-	-			
 Cover for vertical TD T-branch	80	80	38301	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	3 6
		100	38302			
		150	38303			
		200	38304			
		300	38305			
		400	38306			
		500	38307			
 Vertical side TDS T-branch	80	80	37161	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	6 3 30 30
		100	37162			
		150	37163			
		200	37164			
		300	37165			
		400	37166			
		500	37167			
		-	-			
 Cover for vertical side TDS T-branch	80	80	38301	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	3 6
		100	38322			
		150	38323			
		200	38324			
		300	38325			
		400	38326			
		500	38327			
 Vertical TDSA T-branch - adapter	80	80/100	37601	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	6 3 30 30
		80/150	37602			
		80/200	37603			
		80/300	37604			
		100/150	37605			
		100/200	37606			
		100/300	37607			
		150/200	37610			
		150/300	37611			
		150/400	37612			
		200/300	37614			
		200/400	37615			
		200/500	37616			
		300/400	37617			
		300/500	37618			

## Table of picking with installation elements

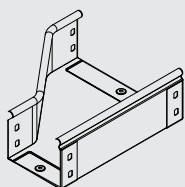
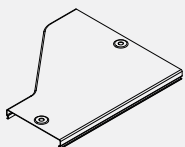
Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>Cover for vertical TDSA T-branch – adapter</b></p>	80	80/100	38381	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	3 6
		80/150	38382			
		80/200	38383			
		80/300	38384			
		100/150	38485			
		100/200	38486			
		100/300	38387			
		150/200	38390			
		150/300	38391			
		150/400	38392			
		200/300	38394			
		200/400	38395			
		200/500	38396			
		300/400	38397			
		300/500	38398			
 <p><b>Vertical TDSR T-branch – adapter</b></p>	80	100/80	37620	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	6 3 30 30
		150/80	37621			
		150/100	37622			
		200/80	37623			
		200/100	37624			
		200/150	37625			
		300/80	37626			
		300/100	37627			
		300/150	37628			
		300/200	37629			
		400/150	37632			
		400/200	37633			
		500/200	37638			
		500/300	37639			
 <p><b>Cover for vertical TDSR T-branch – adapter</b></p>	80	100/80	38302	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	3 6
		150/80	38303			
		150/100	38400			
		200/80	38304			
		200/100	38401			
		200/150	38402			
		300/80	38305			
		300/100	38403			
		300/150	38404			
		300/200	38405			
		400/150	38407			
		400/200	38408			
		500/200	38412			
		500/300	38413			
 <p><b>Cover-type horizontal branch DDT</b></p>	50 80 100	100/100	36562	PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM010610 CM100600 CM030508	3 2 2 6
		150/100	36563			
		200/100	36566			
		200/150	36567			
		300/100	36570			
		300/150	36571			
		300/200	36572			

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 Cover-type vertical branch DDS	50 80 100	100/50	37378	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37301 37501 CM010610 CM100600 CM030508	2 3 4 4 6
		150/50	37379			
		200/50	37380			
		200/100	37381			
		300/50	37382			
		300/100	37383			
		300/150	37384			
 Branch-cover (flat) TSS	80	100	37232	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37303 37501 CM010610 CM100600 CM030508	2 4 10 10 6
		150	37233			
		200	37234			
		300	37235			
		400	37226			
		500	37227			
 Rising T-branch (flat) TSS	80	80	37221	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37303 37501 CM010610 CM100600 CM030508	6 6 30 30 6
		100	37222			
		150	37223			
		200	37224			
		300	37225			
 TS branch-cover	80	100	37242	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37303 37501 CM010610 CM100600 CM030508	2 4 10 10 6
		200	37243			
		300	37244			
		400	37206			
		500	37207			
 Rising TS T-branch	80	80	37201	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37303 37501 CM010610 CM100600 CM030508	6 6 30 30 6
		100	37202			
		150	37203			
		200	37204			
		300	37205			

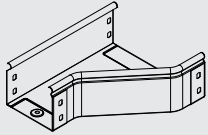
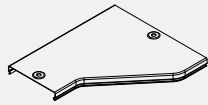
## Table of picking with installation elements

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>RRC central reducer</b></p>	50	100/50	36308	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		150/100	36309			
		200/100	36310			
		200/150	36311			
		300/100	36312			
		300/150	36313			
		300/200	36314			
		400/200	36315			
		400/300	36316			
		500/200	36317			
		500/300	36318			
		500/400	36319			
	80	150/80	36281	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		150/100	36282			
		200/80	36283			
		200/100	36284			
		200/150	36285			
		300/80	36286			
		300/100	36287			
		300/150	36288			
		300/200	36289			
		400/200	36299			
		400/300	36290			
		500/300	36291			
	100	150/100	36320	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		200/100	36321			
		200/150	36322			
		300/100	36323			
		300/150	36324			
		300/200	36325			
		400/200	36326			
		400/300	36327			
		500/200	36328			
		500/300	36329			
 <p><b>Cover for RRC central reducer</b></p>	15	100/50	38079	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		150/80	38081			
		150/100	38082			
		200/80	38083			
		200/100	38084			
		200/150	38085			
		300/80	38086			
		300/100	38087			
		300/150	38088			
		300/200	38089			
		400/200	38308			
		400/300	38090			
		500/200	38393			
		500/300	38091			
		500/400	38092			



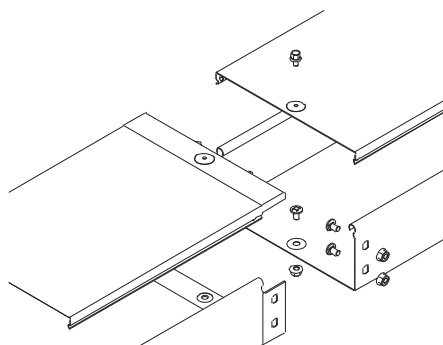
Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <p><b>RRS left reducer</b></p>	50	100/50	36354	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		150/100	36355			
		200/100	36356			
		200/150	36357			
		300/100	36358			
		300/150	36359			
		300/200	36360			
		400/200	36361			
		400/300	36362			
		500/200	36363			
		500/300	36364			
		500/400	36365			
	80	100/80	36521	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		150/80	36522			
		150/100	36523			
		200/80	36524			
		200/100	36525			
		200/150	36526			
		300/80	36527			
		300/100	36528			
		300/150	36529			
		300/200	36530			
		400/200	36305			
		400/300	36531			
		500/300	36532			
		500/400	36307			
	100	150/100	36366	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		200/100	36367			
		200/150	36368			
		300/100	36369			
		300/150	36370			
		300/200	36371			
		400/200	36372			
		400/300	36373			
		500/200	36374			
		500/300	36375			
 <p><b>Cover for RRS left reducer</b></p>	15	100/50	38160	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		100/80	38161			
		150/80	38162			
		150/100	38163			
		200/80	38164			
		200/100	38165			
		200/150	38166			
		300/80	38167			
		300/100	38168			
		300/150	38169			
		300/200	38170			
		400/200	38313			
		400/300	38171			
		500/200	38315			
		500/300	38172			
		500/400	38173			

## Table of picking with installation elements

Accessory	Height H, mm	Width B, mm	Accessory code	Description of mounting element	Code of mounting element	Quantity, pcs.
 <b>RRD right reducer</b>	50	100/50	36331	GTO joint plate H50, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37301 37501 CM010610 CM100600	4 2 12 12
		150/100	36332			
		200/100	36333			
		200/150	36334			
		300/100	36335			
		300/150	36336			
		300/200	36337			
		400/200	36338			
		400/300	36339			
		500/200	36340			
		500/300	36341			
		500/400	36342			
	80	100/80	36401	GTO joint plate H80, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37303 37501 CM010610 CM100600	4 2 20 20
		150/80	36402			
		150/100	36403			
		200/80	36404			
		200/100	36405			
		200/150	36406			
		300/80	36407			
		300/100	36408			
		300/150	36409			
		300/200	36410			
		400/200	36301			
		400/300	36411			
		500/300	36412			
		500/400	36413			
	100	150/100	36343	GTO joint plate H100, PTCE grounding plate, Square neck bolt M6x10, Hexagon nut M6 with serrate flange	37305 37501 CM010610 CM100600	4 2 20 20
		200/100	36344			
		200/150	36345			
		300/100	36346			
		300/150	36347			
		300/200	36348			
		400/200	36349			
		400/300	36350			
		500/200	36351			
		500/300	36352			
		500/400	36353			
 <b>Cover for RRD right reducer</b>	15	100/50	38120	PTCE grounding plate, Hexagon flange bolt M5x8 for ensuring electrical contact between covers	37501 CM030508	2 4
		100/80	38121			
		150/80	38122			
		150/100	38123			
		200/80	38124			
		200/100	38125			
		200/150	38126			
		300/80	38127			
		300/100	38128			
		300/150	38129			
		300/200	38130			
		400/200	38310			
		400/300	38131			
		500/200	38316			
		500/300	38132			
		500/400	38133			

## Installation scheme

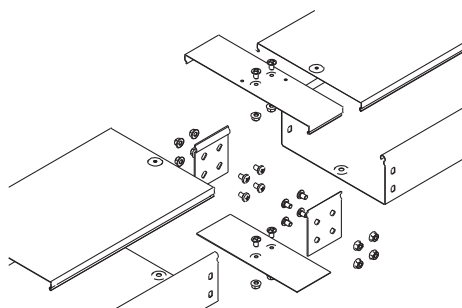
### Connection of trays "Male-Female"


**Description:**

- when trays are connected by "male-female" only bolts and nuts are needed. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	1	CM030508
Completion for tray			
50	Square neck bolt M6x10	3	CM010610
	Hexagon nut M6 with serrate flange	3	CM100600
80	Square neck bolt M6x10	5	CM010610
	Hexagon nut M6 with serrate flange	5	CM100600
100	Square neck bolt M6x10	5	CM010610
	Hexagon nut M6 with serrate flange	5	CM100600

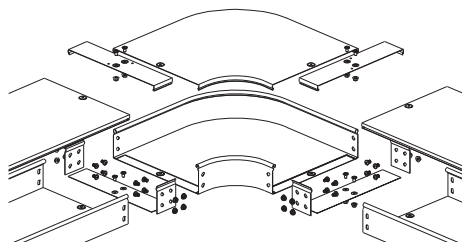
### Connection of the trays


**Description:**

- GTO fixing plates and CGB joints are applied if "male-female" connection is not provided and in cutting points. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Splice plate CGC for tray cover	1	depends on the width of tray
	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
Completion for tray			
50	Square neck bolt M6x10	6	CM010610
	Hexagon nut M6 with serrate flange	6	CM100600
	GTO joint plate H50	2	37301
	Splice plate CGB for tray base	1	depends on the width of tray
80	Square neck bolt M6x10	10	CM010610
	Hexagon nut M6 with serrate flange	10	CM100600
	GTO joint plate H80	2	37303
	Splice plate CGB for tray base	1	depends on the width of tray
100	Square neck bolt M6x10	10	CM010610
	Hexagon nut M6 with serrate flange	10	CM100600
	GTO joint plate H100	2	37305
	Splice plate CGB for tray base	1	depends on the width of tray

## Horizontal bend

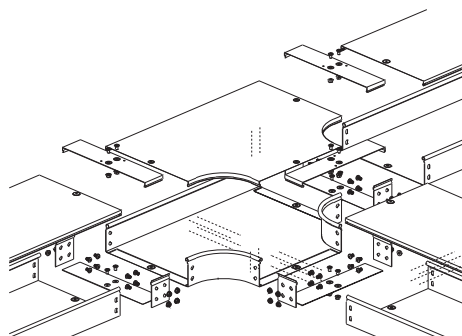


### Description:

- for arrangement of the cable line at the angle of 45° and 90° is used CPO45 and CPO90 bend.
- For mounting of the horizontal bends are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Complectation for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	2	CM030508
	Splice plate CGC for tray cover	2	depends on the width of tray
	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
Complectation for tray			
50	Square neck bolt M6x10	12	CM010610
	Hexagon nut M6 with serrate flange	12	CM100600
	GTO joint plate H50	4	37301
	Splice plate CGB for tray base	2	depends on the width of tray
80	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H80	4	37303
	Splice plate CGB for tray base	2	depends on the width of tray
100	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H100	4	37305
	Splice plate CGB for tray base	2	depends on the width of tray

## Horizontal T-branch

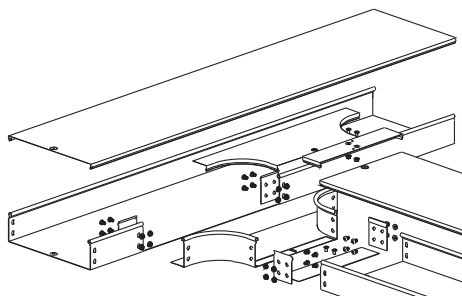


### Description:

- for branching of the cable line is used horizontal DPT T-branch. For mounting of the horizontal DPT T-branch are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Complectation for cover			
50,80,100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	3	CM030508
	Splice plate CGC for tray cover	3	depends on the width of tray
	Square neck bolt M6x10	3	CM010610
	Hexagon nut M6 with serrate flange	3	CM100600
Complectation for tray			
50	Square neck bolt M6x10	18	CM010610
	Hexagon nut M6 with serrate flange	18	CM100600
	GTO joint plate H50	6	37301
	Splice plate CGB for tray base	3	depends on the width of tray
80	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H80	6	37303
	Splice plate CGB for tray base	3	depends on the width of tray
100	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H100	6	37305
	Splice plate CGB for tray base	3	depends on the width of tray

## T-branch

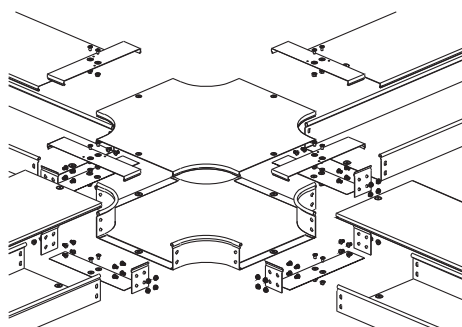


### Description:

- for branching of the cable line is used DL T-branch. For mounting of the DL T-branch are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	1	CM030508
	Splice plate CGC for tray cover	1	depends on the width of tray
	Square neck bolt M6x10	1	CM010610
	Hexagon nut M6 with serrate flange	1	CM100600
Completion for tray			
50	Square neck bolt M6x10	10	CM010610
	Hexagon nut M6 with serrate flange	10	CM100600
	GTO joint plate H50	4	37301
	Splice plate CGB for tray base	1	depends on the width of tray
80	Square neck bolt M6x10	18	CM010610
	Hexagon nut M6 with serrate flange	18	CM100600
	GTO joint plate H80	4	37303
	Splice plate CGB for tray base	1	depends on the width of tray
100	Square neck bolt M6x10	18	CM010610
	Hexagon nut M6 with serrate flange	18	CM100600
	GTO joint plate H100	4	37305
	Splice plate CGB for tray base	1	depends on the width of tray

## X-branch

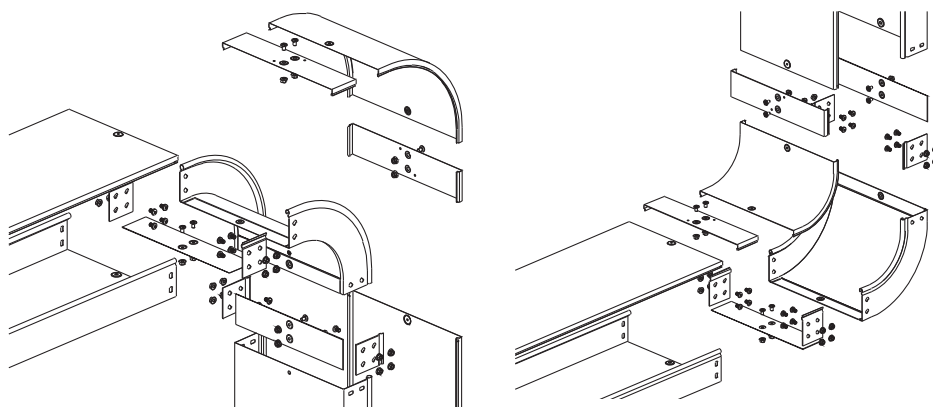


### Description:

- for arrangement of X-type line branch is used horizontal DPX cross branch. For mounting of the horizontal DPX cross branch are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	4	CM030508
	Splice plate CGC for tray cover	4	depends on the width of tray
	Square neck bolt M6x10	4	CM010610
	Hexagon nut M6 with serrate flange	4	CM100600
Completion for tray			
50	Square neck bolt M6x10	24	CM010610
	Hexagon nut M6 with serrate flange	24	CM100600
	GTO joint plate H50	8	37301
	Splice plate CGB for tray base	4	depends on the width of tray
80	Square neck bolt M6x10	40	CM010610
	Hexagon nut M6 with serrate flange	40	CM100600
	GTO joint plate H80	8	37303
	Splice plate CGB for tray base	4	depends on the width of tray
100	Square neck bolt M6x10	40	CM010610
	Hexagon nut M6 with serrate flange	40	CM100600
	GTO joint plate H100	8	37305
	Splice plate CGB for tray base	4	depends on the width of tray

## Inner/ external vertical bend

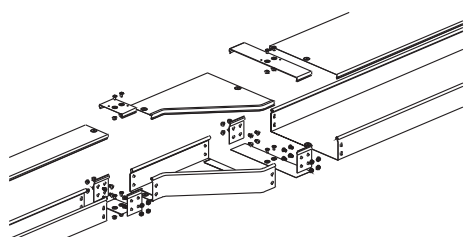


### Description:

- for arrangement of the cable line up/down at the angle of 45° and 90° are used bends CS/CD 90/45. For mounting of the horizontal DPX cross branch are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	2	CM030508
	Splice plate CGC for tray cover	2	depends on the width of tray
	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
Completion for tray			
50	Square neck bolt M6x10	12	CM010610
	Hexagon nut M6 with serrate flange	12	CM100600
	GTO joint plate H50	4	37301
	Splice plate CGB for tray base	2	depends on the width of tray
80	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H80	4	37303
	Splice plate CGB for tray base	2	depends on the width of tray
100	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H100	4	37305
	Splice plate CGB for tray base	2	depends on the width of tray

## Width transition

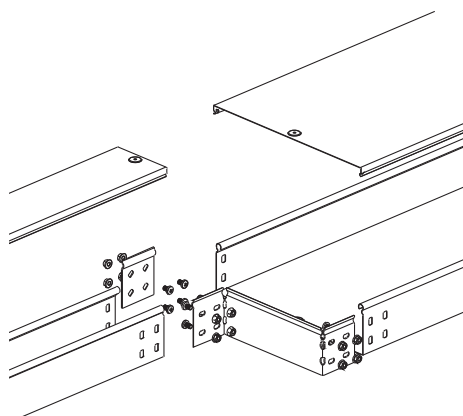


### Description:

- for arrangement of width transition of the line are used RRS/RRC/RRD adapters. For mounting of the adapters are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	2	CM030508
	Splice plate CGC for tray cover	2	depends on the width of tray
	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
Completion for tray			
50	Square neck bolt M6x10	12	CM010610
	Hexagon nut M6 with serrate flange	12	CM100600
	GTO joint plate H50	4	37301
	Splice plate CGB for tray base	2	depends on the width of tray
80	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H80	4	37303
	Splice plate CGB for tray base	2	depends on the width of tray
100	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H100	4	37305
	Splice plate CGB for tray base	2	depends on the width of tray

## Width transition (simple)

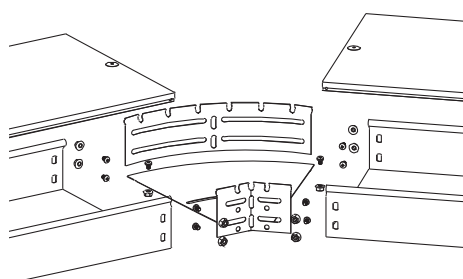


### Description:

- for arrangement of width transition (simple) of the line are used simple reducers. For mounting of the adapters are applied GTO joint plates. These mounting accessories are installed inside of the tray. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for tray			
50	Square neck bolt M6x10	6	CM010610
	Hexagon nut M6 with serrate flange	6	CM100600
	GTO joint plate H50	1	37301
80	Square neck bolt M6x10	12	CM010610
	Hexagon nut M6 with serrate flange	12	CM100600
	GTO joint plate H80	1	37303
100	Square neck bolt M6x10	12	CM010610
	Hexagon nut M6 with serrate flange	12	CM100600
	GTO joint plate H100	1	37305

## Horizontal bend of the cable line



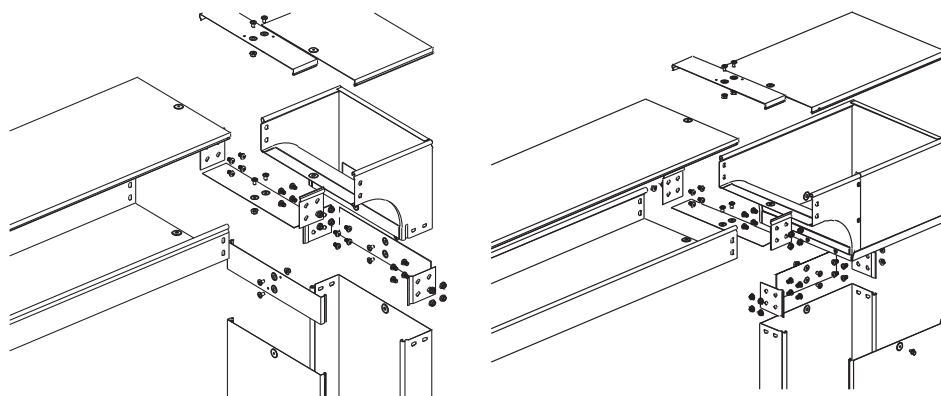
### Description:

- for arrangement of the cable line at the angle of 0–45° is used variable horizontal bend CPO. For mounting of variable horizontal bend CPO only bolts and nuts are needed. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for tray			
50	Square neck bolt M6x10	6	CM010610
	Hexagon nut M6 with serrate flange	6	CM100600
80	Square neck bolt M6x10	10	CM010610
	Hexagon nut M6 with serrate flange	10	CM100600
100	Square neck bolt M6x10	10	CM010610
	Hexagon nut M6 with serrate flange	10	CM100600



## External vertical bend CDV90/CDSS90/ CDSD90

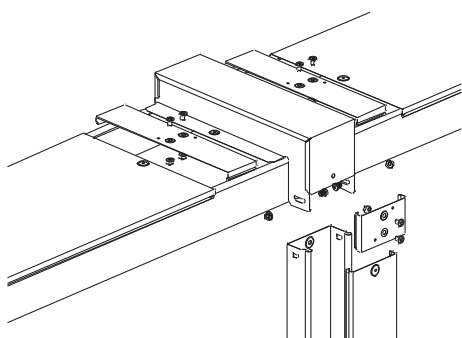


### Description:

- for mounting of the External vertical bend CDV90/CDSS90/ CDSD90 are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	2	CM030508
	Splice plate CGC for tray cover	2	depends on the width of tray
	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
Completion for tray			
50	Square neck bolt M6x10	12	CM010610
	Hexagon nut M6 with serrate flange	12	CM100600
	GTO joint plate H50	4	37301
	Splice plate CGB for tray base	2	depends on the width of tray
80	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H80	4	37303
	Splice plate CGB for tray base	2	depends on the width of tray
100	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H100	4	37305
	Splice plate CGB for tray base	2	depends on the width of tray

## Cover-type vertical branch DDS

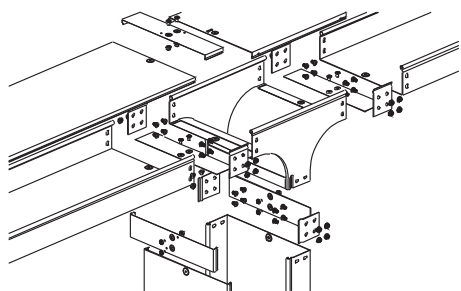


### Description:

- for arrangement of T-type line branch downwards is used Cover-type vertical branch DDS. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50, 80, 100	Splice plate CGC for tray cover	3	depends on the width of tray
	Square neck bolt M6x10	8	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	2	CM030508

## Vertical TD T-branch

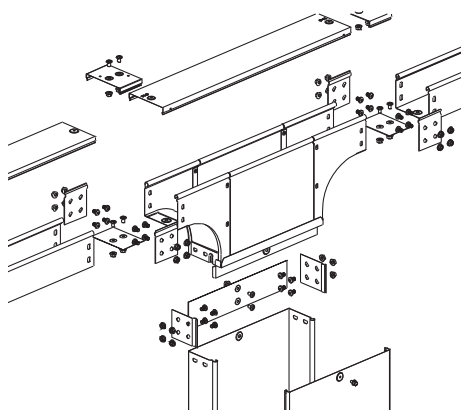


### Description:

- for mounting of the vertical TD T-branch are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	3	CM030508
	Splice plate CGC for tray cover	3	depends on the width of tray
	Square neck bolt M6x10	3	CM010610
	Hexagon nut M6 with serrate flange	3	CM100600
Completion for tray			
50	Square neck bolt M6x10	18	CM010610
	Hexagon nut M6 with serrate flange	18	CM100600
	GTO joint plate H50	6	37301
	Splice plate CGB for tray base	3	depends on the width of tray
80	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H80	6	37303
	Splice plate CGB for tray base	3	depends on the width of tray
100	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H100	6	37305
	Splice plate CGB for tray base	3	depends on the width of tray

## Vertical TDS/TDSA/TDSR T-branch – adapter

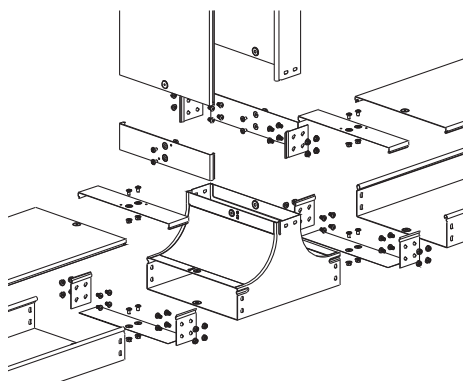


### Description:

- for mounting of the TDS/TDSA/TDSR T- branches - adapter are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Completion for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	3	CM030508
	Splice plate CGC for tray cover	2	depends on the width of tray
	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
Completion for tray			
50	Square neck bolt M6x10	18	CM010610
	Hexagon nut M6 with serrate flange	18	CM100600
	GTO joint plate H50	6	37301
	Splice plate CGB for tray base	3	depends on the width of tray
80	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H80	6	37303
	Splice plate CGB for tray base	3	depends on the width of tray
100	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H100	6	37305
	Splice plate CGB for tray base	3	depends on the width of tray

## TS T-branch

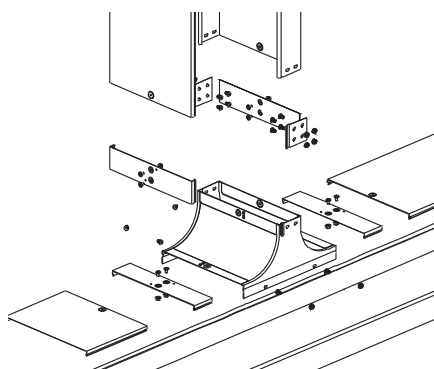


### Description:

- for mounting of rising TS T-branch are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Complectation for cover			
50, 80, 100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	3	CM030508
	Splice plate CGC for tray cover	3	depends on the width of tray
	Square neck bolt M6x10	6	CM010610
	Hexagon nut M6 with serrate flange	6	CM100600
Complectation for tray			
50	Square neck bolt M6x10	18	CM010610
	Hexagon nut M6 with serrate flange	18	CM100600
	GTO joint plate H50	6	37301
	Splice plate CGB for tray base	3	depends on the width of tray
80	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H80	6	37303
	Splice plate CGB for tray base	3	depends on the width of tray
100	Square neck bolt M6x10	30	CM010610
	Hexagon nut M6 with serrate flange	30	CM100600
	GTO joint plate H100	6	37305
	Splice plate CGB for tray base	3	depends on the width of tray

## TS-branch-cover

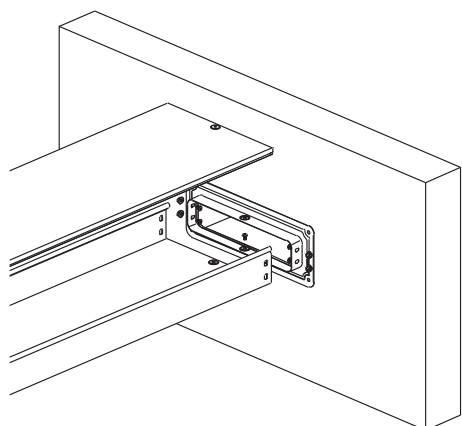


### Description:

- for mounting of TS branch-cover are applied GTO joint plate and CGB splice plate. These mounting accessories are installed inside of the tray. CGC joints are used for connection of the covers and mounted on top of the covers. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
Complectation for cover			
50,80,100	Hexagon flange bolt M5x8 for ensuring electrical contact between covers	3	CM030508
	Splice plate CGC for tray cover	3	depends on the width of tray
	Square neck bolt M6x10	3	CM010610
	Hexagon nut M6 with serrate flange	3	CM100600
Complectation for tray			
50	Square neck bolt M6x10	16	CM010610
	Hexagon nut M6 with serrate flange	16	CM100600
	GTO joint plate H50	2	37301
	Splice plate CGB for tray base	1	depends on the width of tray
80	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H80	2	37303
	Splice plate CGB for tray base	1	depends on the width of tray
100	Square neck bolt M6x10	20	CM010610
	Hexagon nut M6 with serrate flange	20	CM100600
	GTO joint plate H100	2	37305
	Splice plate CGB for tray base	1	depends on the width of tray

## Enter into the wall

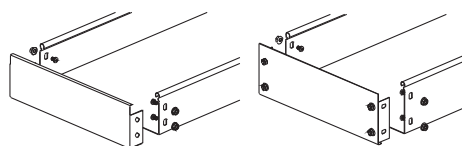


### Description:

- for arrangement of cable entry in wall and equipment is used FR connection flange. For mounting of FR flange only bolts and nuts are needed. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50	Square neck bolt M6x10	3	CM010610
	Hexagon nut M6 with serrate flange	3	CM100600
80	Square neck bolt M6x10	5	CM010610
	Hexagon nut M6 with serrate flange	5	CM100600
100	Square neck bolt M6x10	5	CM010610
	Hexagon nut M6 with serrate flange	5	CM100600

## Cable tray's end

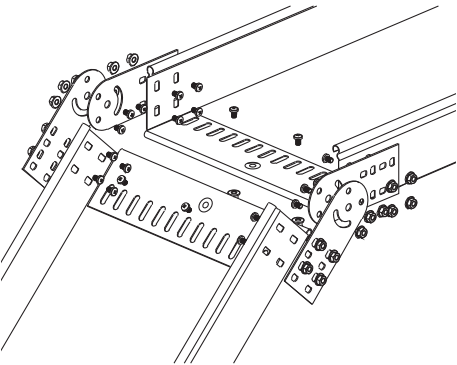


### Description:

- for cable tray's end is used TC solid/assembled end cap. For mounting of TC end cap only bolts and nuts are needed. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600
80	Square neck bolt M6x10	5	CM010610
	Hexagon nut M6 with serrate flange	5	CM100600
100	Square neck bolt M6x10	4	CM010610
	Hexagon nut M6 with serrate flange	4	CM100600

Adjustment of level of cable tray

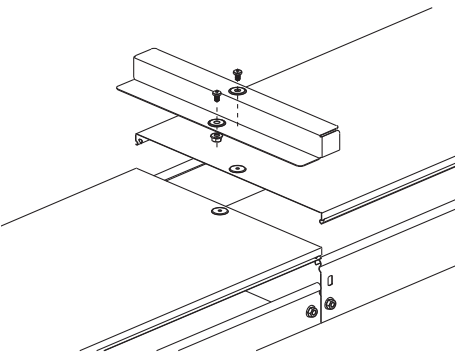


**Description:**

- for inclination of the line at a random angle articulated GSV vertical joint are used. These mounting accessories are installed outside of the edges and they are connected to each other. After mounting the joints are fixed at the needed angle with a screw and a nut. Nuts are placed on the external side of the boards.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50	Square neck bolt M6x10	16	CM010610
	Hexagon nut M6 with serrate flange	16	CM100600
80	Square neck bolt M6x10	24	CM010610
	Hexagon nut M6 with serrate flange	24	CM100600
100	Square neck bolt M6x10	24	CM010610
	Hexagon nut M6 with serrate flange	24	CM100600

Height reducer

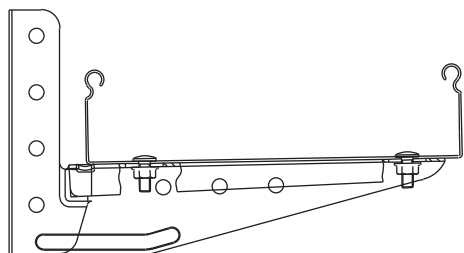


**Description:**

- for arrangement of the transition height RB height reducer is used. For mounting of RB height reducer only bolts and nuts are needed.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50, 80, 100	Square neck bolt M6x10	2	CM010610
	Hexagon nut M6 with serrate flange	2	CM100600

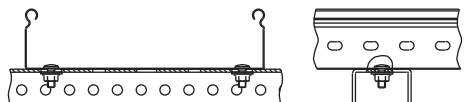
## Mounting on bracket

**Description:**

- trays are attached to consoles with screws and nuts.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50, 80, 100	Mushroom head square neck bolt M6x16	2	CM010616
	Hexagon nut M6 with serrate flange	2	CM100600

## Mounting on profile

**Description:**

- trays are attached to shapes with screws and nuts.

Height, mm	Description of mounting element	Quantity, pcs.	Code
50, 80, 100	Mushroom head square neck bolt M6x16	2	CM010616
	Hexagon nut M6 with serrate flange	2	CM100600





## Cable ladder sistem "L5 Combitech"

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## Cable ladder sistem "L5 Combitech"

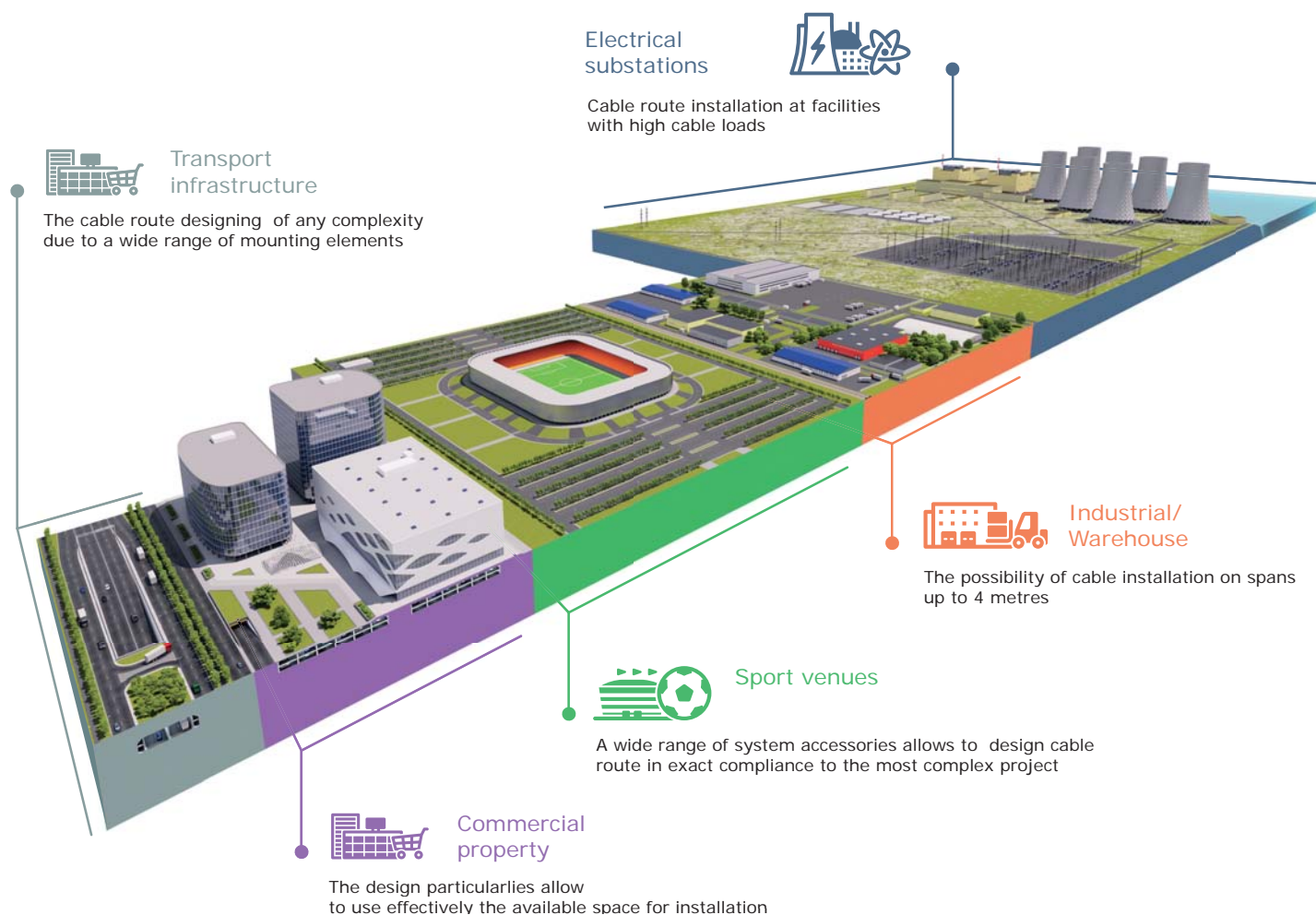
### Area of application

"L5 Combitech" is a cable ladder sistem for cable installation in industrial, business and civil engineering facility.

Comparing to other trays types the cable ladders have the largest bearing capacity, that allows to use them for support of heavy cables with a big diameter on up to 4 m span.

Cable ladder "L5 Combitech" are made of a high-quality sheet steel for different climate versions that provides a long operation life and high reliability of a cable route in whole. The special design of system elements prevents cables from damage during installation and accelerates mounting time up to 60 %.

The wide assortment of system and mounting accessories allows to build a cable support route to implement the most difficult tasks.



### Distinctive features

#### Compatibility with sheet trays

Allows to use accessories of the same design

#### High load bearing capacity

290 kg/m on 1,5 m span and up to 130 kg/m on 3 m span

#### Lap joint

Special connectors are not required, that simplifies and accelerates a cable route mounting

#### Innovative technology of assembling - "Clinching"

Does not damage zinc coating of steel, that longers operation life of a whole route.

#### Fire-resistance criteria R-90

Allows to use ladders to support cables of evacuation chain and fire-extinguishing systems

## Advantages

### Smooth accessories design

Provides a necessary bending radius of a cable, protects it from damage during installation, allows to use effectively the inner volume of the accessory.

### High seismic stability

The ladders were tested on the vibration tables in the Research Institute of Building Constructions (TSNIISK) named after V.A. Kucherenko. The results proved the possibility to use the ladder trays in the areas with the seismicity of 7-9 magnitudes.

### Compliance with European Norms

The ladder passed the series of tests specified by European Standard EN 61537:2007. Once this certificate is obtained ladder "L5 Combitech" can be used not only on the territory of Russia but also abroad. The successful certification of the ladder in Europe confirms once more a high quality of the production.

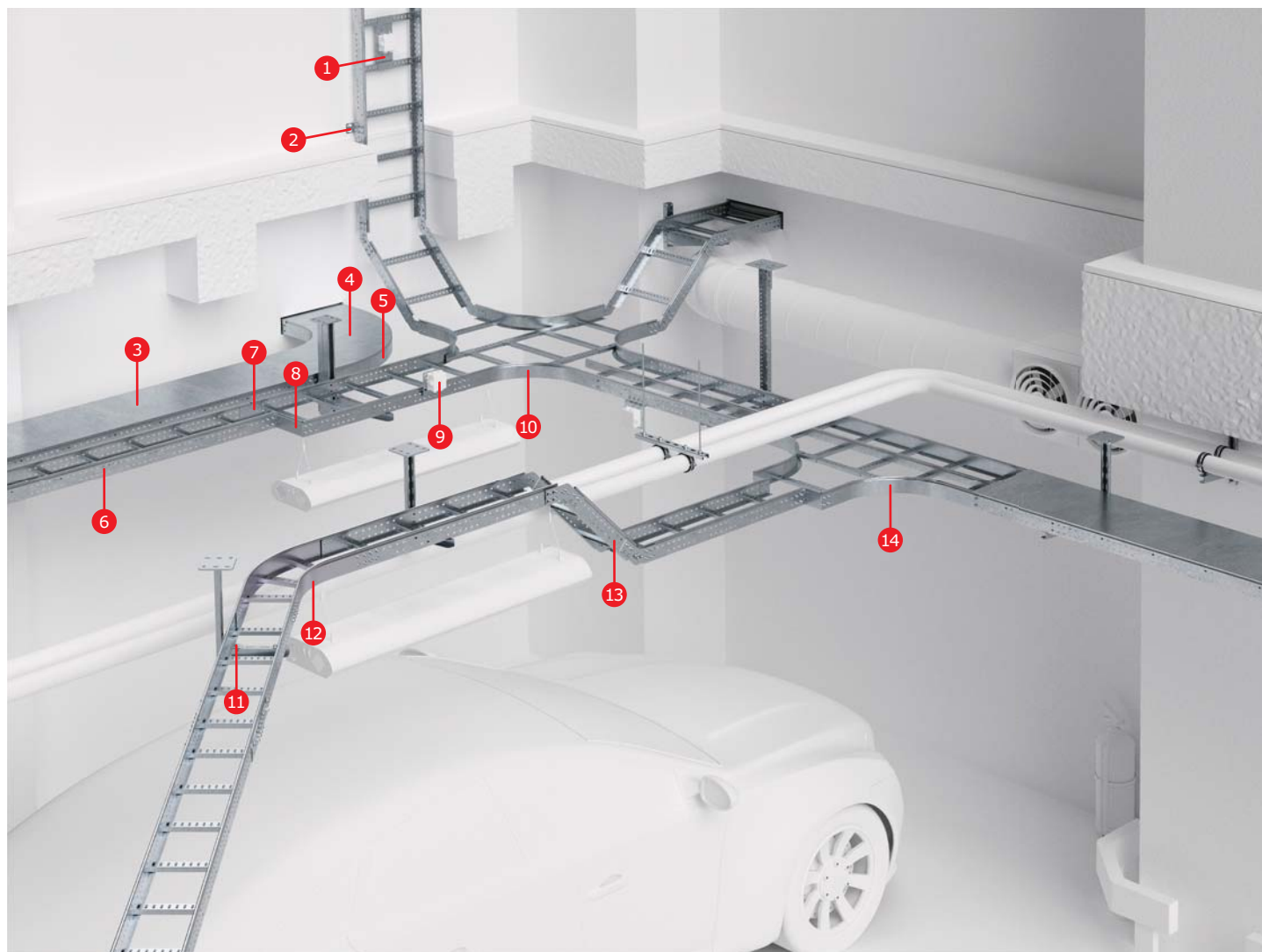
### Professional choice

"L5 Combitech" system has compliance certificate with the operating conditions at "Gazprom" site and does not have any restrictions for the operation at "Transneft".

### Resistance to sea-water corrosion

The cable route system was approved by Russian Maritime Register of Shipping. That makes it possible to use it at the objects situated in the sea and coastal areas.

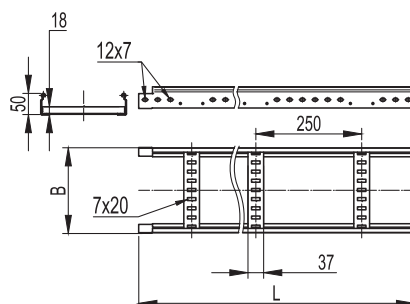
## System components



- |                             |                             |
|-----------------------------|-----------------------------|
| ① Horizontal mounting plate | ⑧ Reducer (simple)          |
| ② Wall fastening            | ⑨ Vertical mounting plate   |
| ③ Straight element cover    | ⑩ Cross-over R300           |
| ④ Accessory cover           | ⑪ Hold-down clamp           |
| ⑤ Bend 90° R300/R600        | ⑫ Bend 45° R300/R600        |
| ⑥ Straight element          | ⑬ Adjustable vertical joint |
| ⑦ Reinforced connector      | ⑭ T-branch R300             |

## Straight elements

### Cable ladder 50 mm high



#### Purpose:

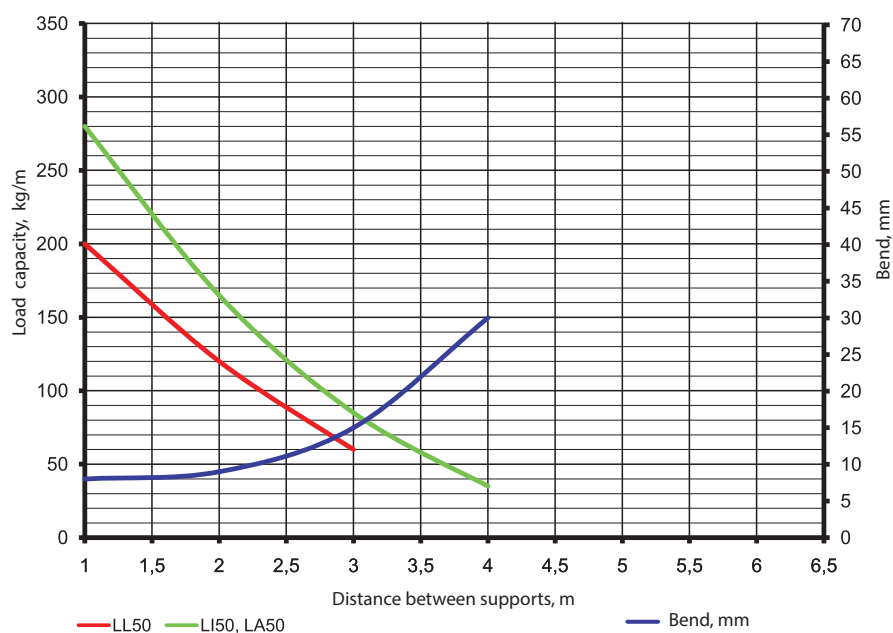
- cable installation on straight section.

#### Characteristics:

- rung thickness 1,0 mm.

Height, mm	Length L, mm	Width B, mm	Longeron thickness, mm	TUA, mm <sup>2</sup>	Weight, version 1, kg/m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50 "Standard"	3000	200	1,2	6400	2,8	LL5020	LL5020HDZ	LL5020INOX	LL5020ZL
		300	1,2	9600	3,5	LL5030	LL5030HDZ	LL5030INOX	LL5030ZL
		400	1,2	12800	4,1	LL5040	LL5040HDZ	LL5040INOX	LL5040ZL
		500	1,2	16000	4,8	LL5050	LL5050HDZ	LL5050INOX	LL5050ZL
		600	1,2	19200	5,4	LL5060	LL5060HDZ	LL5060INOX	LL5060ZL
50 "Plus"	3000	200	1,5	6400	3,2	LI5020	LI5020HDZ	–	LI5020ZL
		300	1,5	9600	3,9	LI5030	LI5030HDZ	–	LI5030ZL
		400	1,5	12800	4,5	LI5040	LI5040HDZ	–	LI5040ZL
		500	1,5	16000	5,2	LI5050	LI5050HDZ	–	LI5050ZL
		600	1,5	19200	5,8	LI5060	LI5060HDZ	–	LI5060ZL
	6000	200	1,5	6400	4,6	LA5020	LA5020HDZ	–	LA5020ZL
		300	1,5	9600	5,9	LA5030	LA5030HDZ	–	LA5030ZL
		400	1,5	12800	7,1	LA5040	LA5040HDZ	–	LA5040ZL
		500	1,5	16000	8,5	LA5050	LA5050HDZ	–	LA5050ZL
		600	1,5	19200	9,6	LA5060	LA5060HDZ	–	LA5060ZL

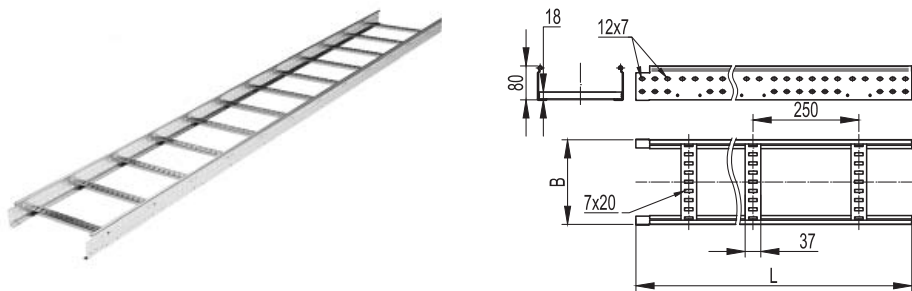
### Load diagram



#### Conditions for safe working load tests:

- for the versions 1, 2 and 4;
- safe working load test conditions: the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load;
- straight elements on span up to 2 m are connected by lap joint connection;
- straight elements on span from 2 to 4 m are connected using GTO L internal connector;
- straight elements on span of 4 m and more are connected using GTO LI external connector.

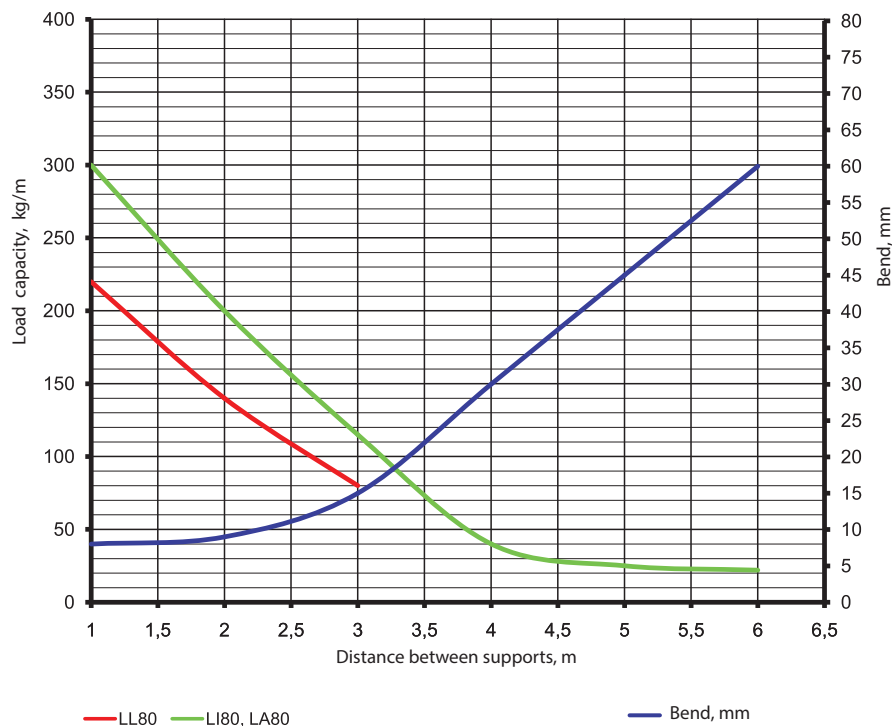
Cable ladder 80 mm high



- Purpose:**
- cable installation on straight section.
- Characteristics:**
- rung thickness 1,0 mm.

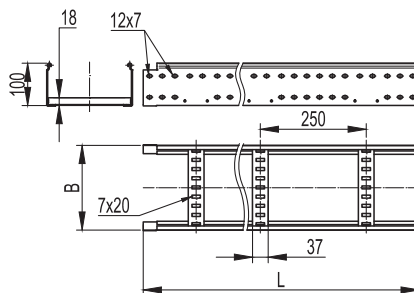
Height, mm	Length L, mm	Width B, mm	Longeron thickness, mm	TUA, mm <sup>2</sup>	Weight, version 1, kg/m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
80 "Standard"	3000	200	1,2	12400	3,4	LL8020	LL8020HDZ	LL8020INOX	LL8020ZL
		300	1,2	18600	4,1	LL8030	LL8030HDZ	LL8030INOX	LL8030ZL
		400	1,2	24800	4,7	LL8040	LL8040HDZ	LL8040INOX	LL8040ZL
		500	1,2	31000	5,4	LL8050	LL8050HDZ	LL8050INOX	LL8050ZL
		600	1,2	37200	6,0	LL8060	LL8060HDZ	LL8060INOX	LL8060ZL
80 "Plus"	3000	200	1,5	12400	4,0	LI8020	LI8020HDZ	-	LI8020ZL
		300	1,5	18600	4,6	LI8030	LI8030HDZ	-	LI8030ZL
		400	1,5	24800	5,2	LI8040	LI8040HDZ	-	LI8040ZL
		500	1,5	31000	5,9	LI8050	LI8050HDZ	-	LI8050ZL
		600	1,5	37200	6,5	LI8060	LI8060HDZ	-	LI8060ZL
	6000	200	1,5	12400	5,3	LA8020	LA8020HDZ	-	LA8020ZL
		300	1,5	18600	6,7	LA8030	LA8030HDZ	-	LA8030ZL
		400	1,5	24800	7,9	LA8040	LA8040HDZ	-	LA8040ZL
		500	1,5	31000	9,2	LA8050	LA8050HDZ	-	LA8050ZL
		600	1,5	37200	10,4	LA8060	LA8060HDZ	-	LA8060ZL

Load diagram



- Conditions for safe working load tests:**
- for the versions 1, 2 and 4;
  - safe working load test conditions: the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
  - assurance factor not less than 1,7 of declared load;
  - straight elements on span up to 2 m are connected by lap joint connection;
  - straight elements on span from 2 to 4 m are connected using GTO L internal connector;
  - straight elements on span of 4 m and more are connected using GTO LI external connector.

## Cable ladder 100 mm high



### Purpose:

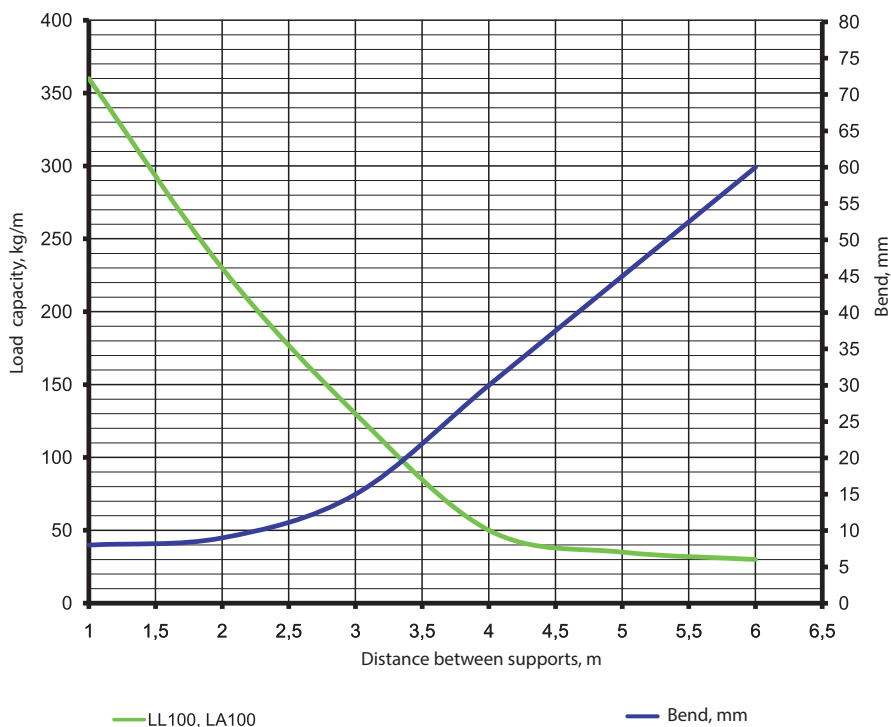
- cable installation on straight section.

### Characteristics:

- rung thickness 1,0 mm.

Height, mm	Length L, mm	Width B, mm	Longeron thickness, mm	TUA, mm <sup>2</sup>	Weight, version 1, kg/m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
100 "Standard"	3000	200	1,5	16400	4,4	LL1020	LL1020HDZ	LL1020INOX	LL1020ZL
		300	1,5	24600	5,1	LL1030	LL1030HDZ	LL1030INOX	LL1030ZL
		400	1,5	32800	5,7	LL1040	LL1040HDZ	LL1040INOX	LL1040ZL
		500	1,5	41000	6,4	LL1050	LL1050HDZ	LL1050INOX	LL1050ZL
		600	1,5	49200	7,0	LL1060	LL1060HDZ	LL1060INOX	LL1060ZL
100 "Standard"	6000	200	1,5	16400	5,8	LA1020	LA1020HDZ	–	LA1020ZL
		300	1,5	24600	7,1	LA1030	LA1030HDZ	–	LA1030ZL
		400	1,5	32800	8,3	LA1040	LA1040HDZ	–	LA1040ZL
		500	1,5	41000	9,7	LA1050	LA1050HDZ	–	LA1050ZL
		600	1,5	49200	10,8	LA1060	LA1060HDZ	–	LA1060ZL

## Load diagram

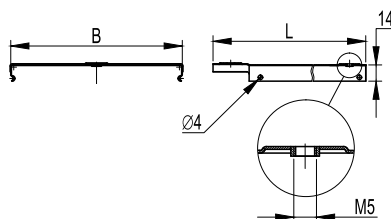


### Conditions for safe working load tests:

- for the versions 1, 2 and 4;
- safe working load test conditions: the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load;
- straight elements on span up to 2 m are connected by lap joint connection;
- straight elements on span from 2 to 4 m are connected using GTO L internal connector;
- straight elements on span of 4 m and more are connected using GTO LI external connector.

## Mounting accessories

### Straight element cover



**Purpose:**

- protects cable from outside environment.

**Distinctive features:**

- the cover is mounted by simple click on C-section of longeron.

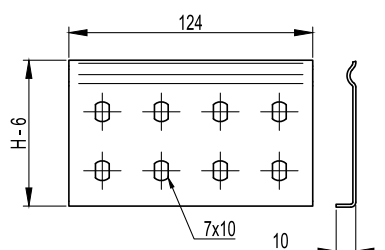
Length L, mm	Width B, mm	Width, version 1, mm	Weight, version 1, kg/m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
3000	200	0,6	1,11	35524	35524HDZ	35524INOX	35524ZL
	300	0,6	1,58	35525	35525HDZ	35525INOX	35525ZL
	400	0,6	2,05	35526	35526HDZ	35526INOX	35526ZL
	500	0,7	2,52	35527	35527HDZ	35527INOX	35527ZL
	600	0,7	2,98	35528	35528HDZ	35528INOX	35528ZL

### Special thickness of covers

Length L, mm	Width B, mm	Thickness 1,0 mm		Thickness 1,2 mm		Thickness 1,5 mm	
		weight, kg/m	code	weight, kg/m	code	weight, kg/m	code
3000	200	1,83	3552410	2,19	3552412	2,74	3552415
	300	2,61	3552510	3,13	3552512	3,91	3552515
	400	3,4	3552610	4,07	3552612	5,09	3552615
	500	4,18	3552710	5,02	3552712	6,27	3552715
	600	4,97	3552810	5,96	3552812	7,45	3552815

Covers 1,0, 1,2 and 1,5 mm in versions 1, 2, 4 and 5 are available upon request in versions 1, 2, 4 and 5.

### GTO L Reinforced horizontal connector



**Purpose:**

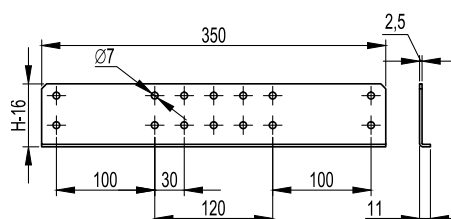
- connection of the straight elements with accessories;
- connection of elements at the cut places;
- connection of straight elements on high load parts of the route.

**Characteristics:**

- steel thickness 1,5 mm.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,071	LG5000	LG5000HDZL	LG5000INOX	LG5000HDZL
80	0,112	LG8000	LG8000HDZL	LG8000INOX	LG8000HDZL
100	0,144	LG1000	LG1000HDZL	LG1000INOX	LG1000HDZL

## GTO LI External connector

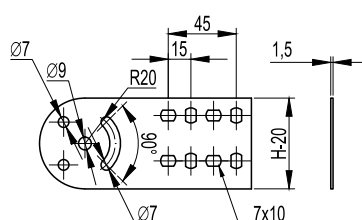


### Purpose:

- straight elements connection on big span;
- straight elements connection on high loaded parts.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,268	LG5200	LG5200HDZL	-	LG5200HDZL
80	0,461	LG8200	LG8200HDZL	-	LG8200HDZL
100	0,600	LG1200	LG1200HDZL	-	LG1200HDZL

## GSV joint

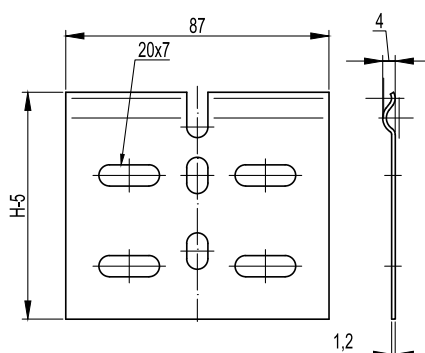


### Purpose:

- inclination of cable route under arbitrary angle.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,230	30013	30013HDZL	30013INOX	30013HDZL
80	0,250	30014	30014HDZL	30014INOX	30014HDZL
100	0,300	30015	30015HDZL	30015INOX	30015HDZL

## Angle connector (internal)



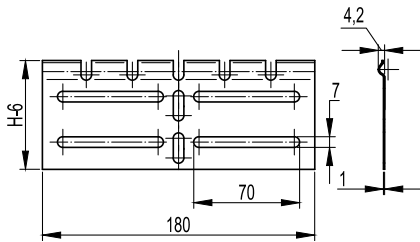
### Purpose:

- angle route bend in the horizontal plane at an arbitrary angle.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,021	LP0050	LP0050HDZL	LP0050INOX	LP0050HDZL
80	0,037	LP0080	LP0080HDZL	LP0080INOX	LP0080HDZL
100	0,043	LP0100	LP0100HDZL	LP0100INOX	LP0100HDZL



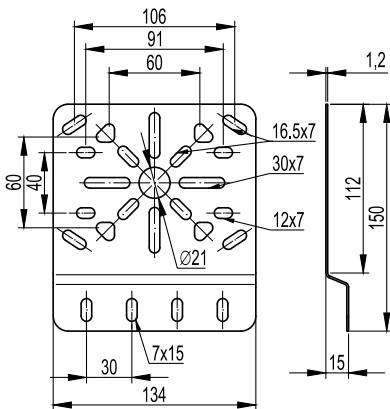
Angle connector (external)



**Purpose:**  
• cable route bend in the horizontal plane at an arbitrary angle.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	0,051	LP0051	LP0051HDZL	LP0051INOX	LP0051HDZL
80	0,113	LP0081	LP0081HDZL	LP0081INOX	LP0081HDZL
100	0,139	LP0101	LP0101HDZL	LP0101INOX	LP0101HDZL

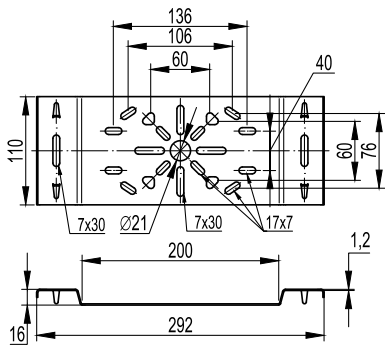
Vertical mounting plate



**Purpose:**  
• used to mount junction boxes to longerons.

Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 3
0,176	LP3000	LP3000HDZL	LP3000INOX	LP3000HDZL

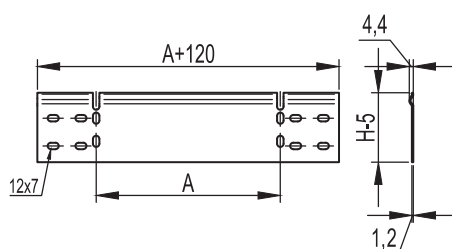
Horizontal mounting plate



**Purpose:**  
• used to mount junction boxes to longerons.

Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
0,312	LP4000	LP4000HDZL	LP4000INOX	LP4000HDZL

## Reducer

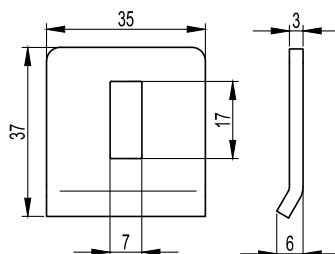


### Purpose:

- connection of ladders of different width.

Height H, mm	Passage width A, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	100	0,100	LR5100	LR5100HDZL	LR5100INOX	LR5100HDZL
	200	0,158	LR5200	LR5200HDZL	LR5200INOX	LR5200HDZL
	300	0,212	LR5300	LR5300HDZL	LR5300INOX	LR5300HDZL
	400	0,260	LR5400	LR5400HDZL	LR5400INOX	LR5400HDZL
80	100	0,157	LR8100	LR8100HDZL	LR8100INOX	LR8100HDZL
	200	0,245	LR8200	LR8200HDZL	LR8200INOX	LR8200HDZL
	300	0,331	LR8300	LR8300HDZL	LR8300INOX	LR8300HDZL
	400	0,417	LR8400	LR8400HDZL	LR8400INOX	LR8400HDZL
100	100	0,202	LR1100	LR1100HDZL	LR1100INOX	LR1100HDZL
	200	0,308	LR1200	LR1200HDZL	LR1200INOX	LR1200HDZL
	300	0,393	LR1300	LR1300HDZL	LR1300INOX	LR1300HDZL
	400	0,522	LR1400	LR1400HDZL	LR1400INOX	LR1400HDZL

## Hold-down clamp

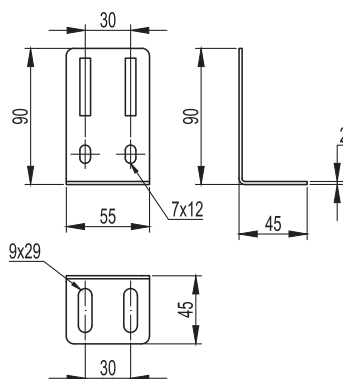


### Purpose:

- ladders mounting to consoles and suspensions.

Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
0,028	LP1000	LP1000HDZL	LP1000INOX	LP1000HDZL

## Wall fastening



### Purpose:

- vertical ladder mounting;
- floor ladder mounting.

Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
0,096	LP5000	LP5000HDZL	LP5000INOX	LP5000HDZL

## Barrier strip



Separator 30 mm high



Separator 50-80 mm high

### Purpose:

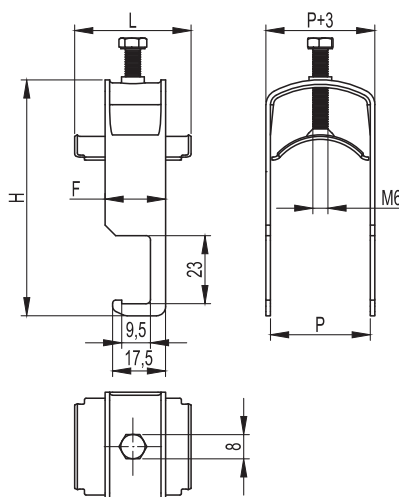
- separating of cables inside ladder.

### Distinctive features:

- for mounting with the cover the height should be chosen one size smaller.

Height H, mm	Length L, mm	Weight, version 1, kg/m	Code, version 1	Code, version 2	Code, version 3	Code, version 4
30	1500	0,380	36460	36460HDZ	36460INOX	36460ZL
50	3000	0,480	36480	36480HDZ	36480INOX	36480ZL
80	3000	0,680	36500	36500HDZ	36500INOX	36500ZL

## BHL cable clamp for ladder

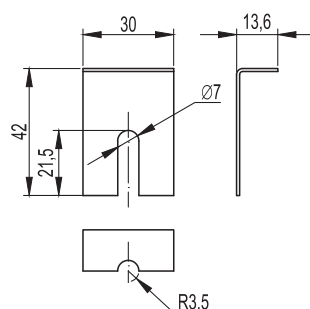


### Purpose:

- for mounting cables to rungs.

Cable diameter, mm	Steel thickness, mm	Cleat length F, mm	Height H, mm	Width P, mm	Weight, kg	Code, version 1
8-14	1,5	20	49	16	0,029	BHL0814
14-20	1,5	20	54	22	0,037	BHL1420
20-26	1,5	20	60	28	0,042	BHL2026
26-32	1,5	20	66	34	0,047	BHL2632
32-38	1,5	20	77	40	0,057	BHL3238
38-44	1,5	20	83	46	0,063	BHL3844
44-50	2,5	25	89	52	0,114	BHL4450
50-56	2,5	25	95	58	0,125	BHL5056
56-63	2,5	25	100	64	0,138	BHL5662
62-68	2,5	25	107	70	0,152	BHL6268
68-74	2,5	25	113	76	0,164	BHL6874

## Cover holder

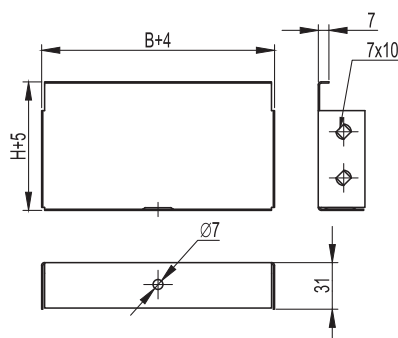


### Purpose:

- additional fixation of cover in case of strong wind loads.

Height H, mm	Weight, version 1, kg/pcs.	Code, version 3
50-80-100	0,15	38500INOX

## Stop-end


**Purpose:**

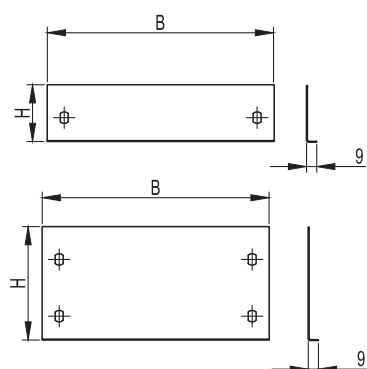
- stop-end for place the end of cable route.

**Characteristics:**

- thickness – 1 mm.

Height H, mm	Width B, mm	Weight, version1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 2
80	200	0,22	37264	37264HDZL	37264INOX	37264HDZL
	300	0,3	37265	37265HDZL	37265INOX	37265HDZL
	400	0,4	37266	37266HDZL	37266INOX	37266HDZL
	500	0,5	37267	37267HDZL	37267INOX	37267HDZL
	600	0,6	37269	37269HDZL	37269INOX	37269HDZL

## Stop-end (assembled)


**Purpose:**

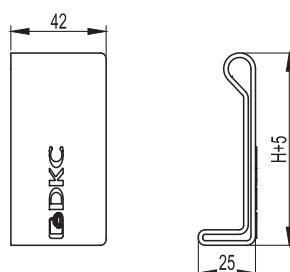
- stop-end for place the end of cable route.

**Characteristics:**

- thickness – 1 mm.

Height H, mm	Width B, mm	Code, version 1	Code, version 2	Code, version 4
100	200	30267	30267HDZL	30267HDZL
	300	30268	30268HDZL	30268HDZL
	400	30269	30269HDZL	30269HDZL
	500	30270	30270HDZL	30270HDZL
	600	37270	37270HDZL	37270HDZL

## End plugs


**Purpose:**

- marks a route's end;

- for men safety.

**Characteristics:**

- material – polyethylene;

- color – red RAL 3020.

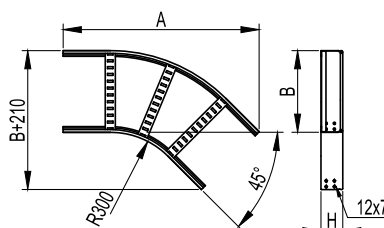
**Set:**

- two end plugs – left and right.

Height H, mm	Weight, Kg/pack	Code
50	0,007	LS5000
80	0,010	LS8000
100	0,012	LS1000

## System accessories

## 45° Horizontal bend R300

**Purpose:**

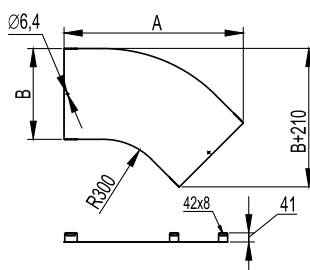
- turn cable route by 45 degrees in the horizontal plane.

**Characteristics:**

- longeron thickness – 1,2 mm;
- rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Total length A, mm	Weight, version 1, kg/ pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	650	1,4	LC0532	LC0532HDZ	LC0532INOX	LC0532ZL
	300	720	1,7	LC0533	LC0533HDZ	LC0533INOX	LC0533ZL
	400	790	1,9	LC0534	LC0534HDZ	LC0534INOX	LC0534ZL
	500	860	2,4	LC0535	LC0535HDZ	LC0535INOX	LC0535ZL
	600	930	2,6	LC0536	LC0536HDZ	LC0536INOX	LC0536ZL
80	200	650	1,8	LC0832	LC0832HDZ	LC0832INOX	LC0832ZL
	300	720	2,0	LC0833	LC0833HDZ	LC0833INOX	LC0833ZL
	400	790	2,3	LC0834	LC0834HDZ	LC0834INOX	LC0834ZL
	500	860	2,8	LC0835	LC0835HDZ	LC0835INOX	LC0835ZL
	600	930	3,1	LC0836	LC0836HDZ	LC0836INOX	LC0836ZL
100	200	650	2,0	LC0132	LC0132HDZ	LC0132INOX	LC0132ZL
	300	720	2,3	LC0133	LC0133HDZ	LC0133INOX	LC0133ZL
	400	790	2,5	LC0134	LC0134HDZ	LC0134INOX	LC0134ZL
	500	860	3,1	LC0135	LC0135HDZ	LC0135INOX	LC0135ZL
	600	930	3,4	LC0136	LC0136HDZ	LC0136INOX	LC0136ZL

## Cover for 45° horizontal bend R300

**Purpose:**

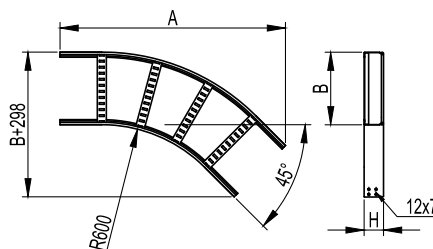
- additional protection of cable from outside environment.

**Characteristics:**

- steel thickness – 1,0 mm.

Base width B, mm	Total length A, mm	Weight, version 1, kg/ pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
200	650	0,8	LK0230	LK0230HDZ	LK0230INOX	LK0230ZL
300	720	1,3	LK0330	LK0330HDZ	LK0330INOX	LK0330ZL
400	790	1,9	LK0430	LK0430HDZ	LK0430INOX	LK0430ZL
500	860	2,5	LK0530	LK0530HDZ	LK0530INOX	LK0530ZL
600	930	3,1	LK0630	LK0630HDZ	LK0630INOX	LK0630ZL

## 45° Horizontal bend R600



### Purpose:

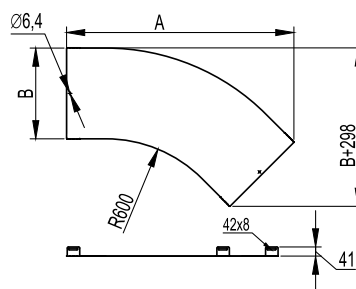
- turn cable route by 45 degrees in the horizontal plane;
- parallel installation of cable routes.

### Characteristics:

- longeron thickness – 1,2 mm;
- rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Total length A, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	862	1,9	LC0562	LC0562HDZ	LC0562INOX	LC0562ZL
	300	932	2,2	LC0563	LC0563HDZ	LC0563INOX	LC0563ZL
	400	1002	2,5	LC0564	LC0564HDZ	LC0564INOX	LC0564ZL
	500	1073	3,0	LC0565	LC0565HDZ	LC0565INOX	LC0565ZL
	600	1143	3,4	LC0566	LC0566HDZ	LC0566INOX	LC0566ZL
80	200	862	2,4	LC0862	LC0862HDZ	LC0862INOX	LC0862ZL
	300	932	2,7	LC0863	LC0863HDZ	LC0863INOX	LC0863ZL
	400	1002	3,0	LC0864	LC0864HDZ	LC0864INOX	LC0864ZL
	500	1073	3,6	LC0865	LC0865HDZ	LC0865INOX	LC0865ZL
	600	1143	3,9	LC0866	LC0866HDZ	LC0866INOX	LC0866ZL
100	200	862	2,7	LC0162	LC0162HDZ	LC0162INOX	LC0162ZL
	300	932	3,0	LC0163	LC0163HDZ	LC0163INOX	LC0163ZL
	400	1002	3,3	LC0164	LC0164HDZ	LC0164INOX	LC0164ZL
	500	1073	4,0	LC0165	LC0165HDZ	LC0165INOX	LC0165ZL
	600	1143	4,3	LC0166	LC0166HDZ	LC0166INOX	LC0166ZL

## Cover for 45° horizontal bend R600



### Purpose:

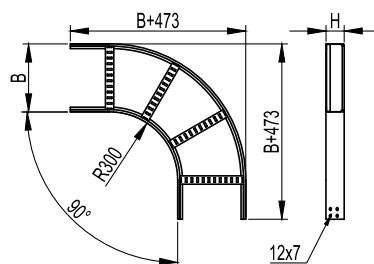
- additional protection of cable from outside environment.

### Characteristics:

- steel thickness – 1,0 mm.

Base width B, mm	Total length A, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
200	862	1,2	LK0260	LK0260HDZ	LK0260INOX	LK0260ZL
300	932	1,9	LK0360	LK0360HDZ	LK0360INOX	LK0360ZL
400	1002	2,6	LK0460	LK0460HDZ	LK0460INOX	LK0460ZL
500	1073	3,4	LK0560	LK0560HDZ	LK0560INOX	LK0560ZL
600	1143	4,3	LK0660	LK0660HDZ	LK0660INOX	LK0660ZL

## 90° Horizontal bend R300


**Purpose:**

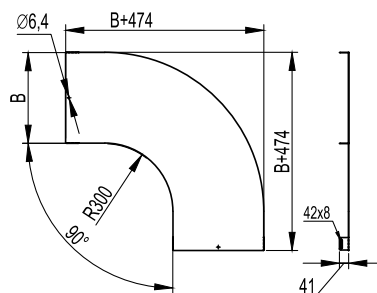
- turn cable route by 90 degrees in the horizontal plane.

**Characteristics:**

- longeron thickness – 1,2 mm;
- rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	2,1	LC5320	LC5320HDZ	LC5320INOX	LC5320ZL
	300	2,4	LC5330	LC5330HDZ	LC5330INOX	LC5330ZL
	400	3,0	LC5340	LC5340HDZ	LC5340INOX	LC5340ZL
	500	3,3	LC5350	LC5350HDZ	LC5350INOX	LC5350ZL
	600	4,0	LC5360	LC5360HDZ	LC5360INOX	LC5360ZL
80	200	2,6	LC8320	LC8320HDZ	LC8320INOX	LC8320ZL
	300	2,9	LC8330	LC8330HDZ	LC8330INOX	LC8330ZL
	400	3,6	LC8340	LC8340HDZ	LC8340INOX	LC8340ZL
	500	4,0	LC8350	LC8350HDZ	LC8350INOX	LC8350ZL
	600	4,7	LC8360	LC8360HDZ	LC8360INOX	LC8360ZL
100	200	2,9	LC1320	LC1320HDZ	LC1320INOX	LC1320ZL
	300	3,4	LC1330	LC1330HDZ	LC1330INOX	LC1330ZL
	400	3,9	LC1340	LC1340HDZ	LC1340INOX	LC1340ZL
	500	4,4	LC1350	LC1350HDZ	LC1350INOX	LC1350ZL
	600	4,4	LC1360	LC1360HDZ	LC1360INOX	LC1360ZL

## Cover for 90° horizontal bend R300


**Purpose:**

- additional protection of cable from outside environment.

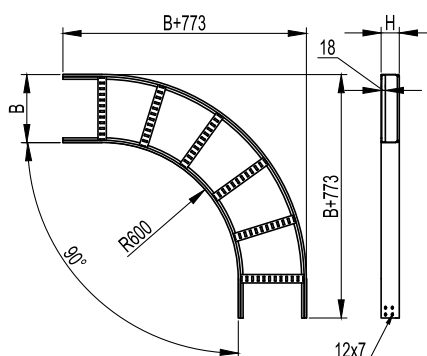
**Characteristics:**

- steel thickness – 1,0 mm.

Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
200	1,6	LK0023	LK0023HDZ	LK0023INOX	LK0023ZL
300	2,6	LK0033	LK0033HDZ	LK0033INOX	LK0033ZL
400	3,7	LK0043	LK0043HDZ	LK0043INOX	LK0043ZL
500	4,9	LK0053	LK0053HDZ	LK0053INOX	LK0053ZL
600	6,2	LK0063	LK0063HDZ	LK0063INOX	LK0063ZL



## 90° Horizontal bend R600



### Purpose:

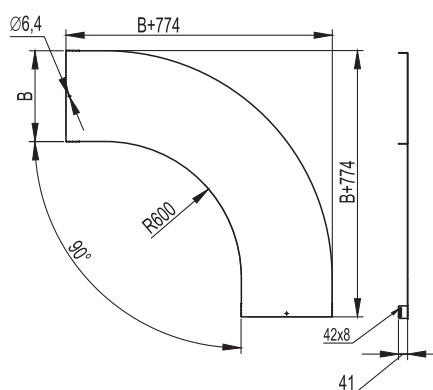
- turn cable route by 90 degrees in the horizontal plane;
- parallel installation of cable routes.

### Characteristics:

- longeron thickness – 1,2 mm;
- rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	2,8	LC5620	LC5620HDZ	LC5620INOX	LC5620ZL
	300	3,2	LC5630	LC5630HDZ	LC5630INOX	LC5630ZL
	400	3,7	LC5640	LC5640HDZ	LC5640INOX	LC5640ZL
	500	4,1	LC5650	LC5650HDZ	LC5650INOX	LC5650ZL
	600	4,8	LC5660	LC5660HDZ	LC5660INOX	LC5660ZL
80	200	3,5	LC8620	LC8620HDZ	LC8620INOX	LC8620ZL
	300	3,9	LC8630	LC8630HDZ	LC8630INOX	LC8630ZL
	400	4,5	LC8640	LC8640HDZ	LC8640INOX	LC8640ZL
	500	5,0	LC8650	LC8650HDZ	LC8650INOX	LC8650ZL
	600	5,3	LC8660	LC8660HDZ	LC8660INOX	LC8660ZL
100	200	4,1	LC1620	LC1620HDZ	LC1620INOX	LC1620ZL
	300	4,5	LC1630	LC1630HDZ	LC1630INOX	LC1630ZL
	400	5,1	LC1640	LC1640HDZ	LC1640INOX	LC1640ZL
	500	5,6	LC1650	LC1650HDZ	LC1650INOX	LC1650ZL
	600	6,4	LC1660	LC1660HDZ	LC1660INOX	LC1660ZL

## Cover for 90° horizontal bend R600



### Purpose:

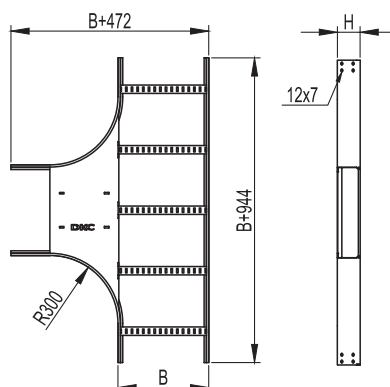
- additional protection of cable from outside environment.

### Characteristics:

- steel thickness – 1,0 mm.

Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
200	2,4	LK0026	LK0026HDZ	LK0026INOX	LK0026ZL
300	3,7	LK0036	LK0036HDZ	LK0036INOX	LK0036ZL
400	5,2	LK0046	LK0046HDZ	LK0046INOX	LK0046ZL
500	6,7	LK0056	LK0056HDZ	LK0056INOX	LK0056ZL
600	8,5	LK0066	LK0066HDZ	LK0066INOX	LK0066ZL

## T-branch R300


**Purpose:**

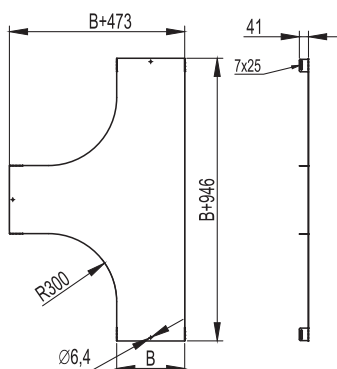
- mounting of cable route branch in the horizontal plane;
- available on request R600.

**Characteristics:**

- longeron thickness – 1,2 mm;
- rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	3,9	LT5302	LT5302HDZ	LT5302INOX	LT5302ZL
	300	4,5	LT5303	LT5303HDZ	LT5303INOX	LT5303ZL
	400	5,6	LT5304	LT5304HDZ	LT5304INOX	LT5304ZL
	500	6,3	LT5305	LT5305HDZ	LT5305INOX	LT5305ZL
	600	6,9	LT5306	LT5306HDZ	LT5306INOX	LT5306ZL
80	200	4,7	LT8302	LT8302HDZ	LT8302INOX	LT8302ZL
	300	5,3	LT8303	LT8303HDZ	LT8303INOX	LT8303ZL
	400	6,4	LT8304	LT8304HDZ	LT8304INOX	LT8304ZL
	500	7,1	LT8305	LT8305HDZ	LT8305INOX	LT8305ZL
	600	7,8	LT8306	LT8306HDZ	LT8306INOX	LT8306ZL
100	200	5,2	LT1302	LT1302HDZ	LT1302INOX	LT1302ZL
	300	5,9	LT1303	LT1303HDZ	LT1303INOX	LT1303ZL
	400	6,9	LT1304	LT1304HDZ	LT1304INOX	LT1304ZL
	500	7,6	LT1305	LT1305HDZ	LT1305INOX	LT1305ZL
	600	8,3	LT1306	LT1306HDZ	LT1306INOX	LT1306ZL

## Cover for T-branch R300


**Purpose:**

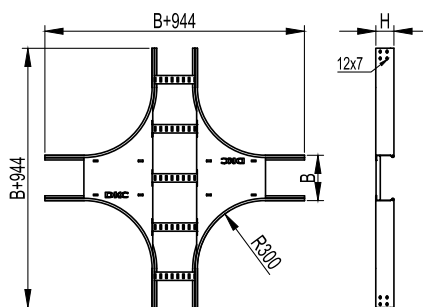
- additional protection of cable from outside environment.

**Characteristics:**

- steel thickness – 1,0 mm.

Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
200	3,00	LK0203	LK0203HDZ	LK0203INOX	LK0203ZL
300	4,50	LK0303	LK0303HDZ	LK0303INOX	LK0303ZL
400	6,30	LK0403	LK0403HDZ	LK0403INOX	LK0403ZL
500	7,60	LK0503	LK0503HDZ	LK0503INOX	LK0503ZL
600	8,90	LK0603	LK0603HDZ	LK0603INOX	LK0603ZL

## Cross-over R300



### Purpose:

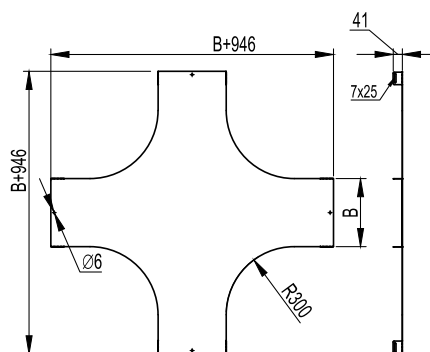
- mounting of cable route crosses on horizontal planes;
- available on request R600.

### Characteristics:

- longeron thickness – 1,2 mm;
- rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	5,5	LX5302	LX5302HDZ	LX5302INOX	LX5302ZL
	300	6,3	LX5303	LX5303HDZ	LX5303INOX	LX5303ZL
	400	7,6	LX5304	LX5304HDZ	LX5304INOX	LX5304ZL
	500	8,5	LX5305	LX5305HDZ	LX5305INOX	LX5305ZL
	600	9,4	LX5306	LX5306HDZ	LX5306INOX	LX5306ZL
80	200	6,3	LX8302	LX8302HDZ	LX8302INOX	LX8302ZL
	300	7,1	LX8303	LX8303HDZ	LX8303INOX	LX8303ZL
	400	8,5	LX8304	LX8304HDZ	LX8304INOX	LX8304ZL
	500	9,4	LX8305	LX8305HDZ	LX8305INOX	LX8305ZL
	600	10,3	LX8306	LX8306HDZ	LX8306INOX	LX8306ZL
100	200	6,9	LX1302	LX1302HDZ	LX1302INOX	LX1302ZL
	300	7,7	LX1303	LX1303HDZ	LX1303INOX	LX1303ZL
	400	9,1	LX1304	LX1304HDZ	LX1304INOX	LX1304ZL
	500	10,0	LX1305	LX1305HDZ	LX1305INOX	LX1305ZL
	600	10,9	LX1306	LX1306HDZ	LX1306INOX	LX1306ZL

## Cover for horizontal cross R300



### Purpose:

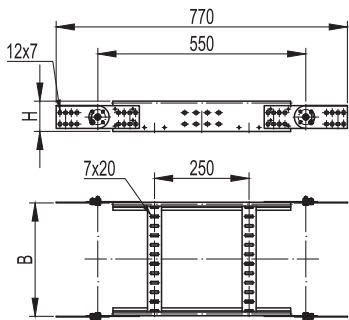
- additional protection of cable from outside environment.

### Characteristics:

- steel thickness – 1,0 mm.

Base width B, mm	Weight, version 1, kg/pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
200	4,10	LK2003	LK2003HDZ	LK2003INOX	LK2003ZL
300	6,00	LK3003	LK3003HDZ	LK3003INOX	LK3003ZL
400	8,10	LK4003	LK4003HDZ	LK4003INOX	LK4003ZL
500	10,30	LK5003	LK5003HDZ	LK5003INOX	LK5003ZL
600	16,10	LK6003	LK6003HDZ	LK6003INOX	LK6003ZL

Adjustable vertical joint



- Purpose:**
- rises and down-drops of cable route;
  - inclination of cable route under arbitrary angle.
- Distinctive features:**
- for increase in turning radius the several sections are mounted in row.
- Characteristics:**
- longeron thickness – 1,2 mm;
  - rung thickness – 1,0 mm.

Height H, mm	Base width B, mm	Weight, version 1, kg/ pcs.	Code, version 1	Code, version 2	Code, version 3	Code, version 4
50	200	2,9	LE5002	LE5002HDZ	LE5002INOX	LE5002ZL
	300	3,0	LE5003	LE5003HDZ	LE5003INOX	LE5003ZL
	400	3,1	LE5004	LE5004HDZ	LE5004INOX	LE5004ZL
	500	3,2	LE5005	LE5005HDZ	LE5005INOX	LE5005ZL
	600	3,3	LE5006	LE5006HDZ	LE5006INOX	LE5006ZL
80	200	3,4	LE8002	LE8002HDZ	LE8002INOX	LE8002ZL
	300	3,5	LE8003	LE8003HDZ	LE8003INOX	LE8003ZL
	400	3,6	LE8004	LE8004HDZ	LE8004INOX	LE8004ZL
	500	3,7	LE8005	LE8005HDZ	LE8005INOX	LE8005ZL
	600	3,8	LE8006	LE8006HDZ	LE8006INOX	LE8006ZL
100	200	4,0	LE1002	LE1002HDZ	LE1002INOX	LE1002ZL
	300	4,1	LE1003	LE1003HDZ	LE1003INOX	LE1003ZL
	400	4,2	LE1004	LE1004HDZ	LE1004INOX	LE1004ZL
	500	4,3	LE1005	LE1005HDZ	LE1005INOX	LE1005ZL
	600	4,4	LE1006	LE1006HDZ	LE1006INOX	LE1006ZL

## Selection table

### Mounting accessories

**Version:**

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Element's height, mm	Versions	Reducer (simple), passage width, mm			
		100	200	300	400
50	version 1	LR5100	LR5200	LR5300	LR5400
	version 2	LR5100HDZL	LR5200HDZL	LR5300HDZL	LR5400HDZL
	version 3	LR5100INOX	LR5200INOX	LR5300INOX	LR5400INOX
	version 4	LR5100HDZL	LR5200HDZL	LR5300HDZL	LR5400HDZL
80	version 1	LR8100	LR8200	LR8300	LR8400
	version 2	LR8100HDZL	LR8200HDZL	LR8300HDZL	LR8400HDZL
	version 3	LR8100INOX	LR8200INOX	LR8300INOX	LR8400INOX
	version 4	LR8100HDZL	LR8200HDZL	LR8300HDZL	LR8400HDZL
100	version 1	LR1100	LR1200	LR1300	LR1400
	version 2	LR1100HDZL	LR1200HDZL	LR1300HDZL	LR1400HDZL
	version 3	LR1100INOX	LR1200INOX	LR1300INOX	LR1400INOX
	version 4	LR1100HDZL	LR1200HDZL	LR1300HDZL	LR1400HDZL



Element's height, mm	Versions	Articulated horizontal connector, internal	Articulated horizontal connector, external	Reinforced horizontal connector, GTO L	External connector GTO LI	Joint GSV
50	version 1	LP0050	LP0051	LG5000	LG5200	30013
	version 2	LP0050HDZL	LP0051HDZL	LG5000HDZL	LG5200HDZL	30013HDZL
	version 3	LP0050INOX	LP0051INOX	LG5000INOX	–	30013INOX
	version 4	LP0050HDZL	LP0051HDZL	LG5000HDZL	LG5200HDZL	30013HDZL
80	version 1	LP0080	LP0081	LG8000	LG8200	30014
	version 2	LP0080HDZL	LP0081HDZL	LG8000HDZL	LG8200HDZL	30014HDZL
	version 3	LP0080INOX	LP0081INOX	LG8000INOX	–	30014INOX
	version 4	LP0080HDZL	LP0081HDZL	LG8000HDZL	LG8200HDZL	30014HDZL
100	version 1	LP0100	LP0101	LG1000	LG1200	30015
	version 2	LP0100HDZL	LP0101HDZL	LG1000HDZL	LG1200HDZL	30015HDZL
	version 3	LP0100INOX	LP0101INOX	LG1000INOX	–	30015INOX
	version 4	LP0100HDZL	LP0101HDZL	LG1000HDZL	LG1200HDZL	30015HDZL



Element's height, mm	Versions	Barrier strip, 3000 mm	Wall fastening	Hold-down clamp	Vertical mounting plate	Horizontal mounting plate	End plugs, plastic RAL 3020
50	version 1	36460	LP5000	LP1000	LP3000	LP4000	LS5000
	version 2	36460HDZ	LP5000HDZL	–	LP3000HDZL	LP4000HDZL	–
	version 3	36460INOX	LP5000INOX	LP1000INOX	LP3000INOX	LP4000INOX	–
	version 4	36460ZL	LP5000HDZL	LP1000HDZL	LP3000HDZL	LP4000HDZL	–
80	version 1	36480	LP5000	LP1000	LP3000	LP4000	LS8000
	version 2	36480HDZ	LP5000HDZL	–	LP3000HDZL	LP4000HDZL	–
	version 3	36480INOX	LP5000INOX	LP1000INOX	LP3000INOX	LP4000INOX	–
	version 4	36480ZL	LP5000HDZL	LP1000HDZL	LP3000HDZL	LP4000HDZL	–
100	version 1	36500	LP5000	LP1000	LP3000	LP4000	LS1000
	version 2	36500HDZ	LP5000HDZL	–	LP3000HDZL	LP4000HDZL	–
	version 3	36500INOX	LP5000INOX	LP1000INOX	LP3000INOX	LP4000INOX	–
	version 4	36500ZL	LP5000HDZL	LP1000HDZL	LP3000HDZL	LP4000HDZL	–

## System accessories 50 mm high

### Version:

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height, mm	Width, mm	Version	Straight element, 3000 mm, "Standard"	Straight element, 3000 mm, "Plus"	Straight element, 6000 mm
50	200	version 1	LL5020	LI5020	LA5020
		version 2	LL5020HDZ	LI5020HDZ	LA5020HDZ
		version 3	LL5020INOX	–	–
		version 4	LL5020ZL	LI5020ZL	LA5020ZL
	300	version 1	LL5030	LI5030	LA5030
		version 2	LL5030HDZ	LI5030HDZ	LA5030HDZ
		version 3	LL5030INOX	–	–
		version 4	LL5030ZL	LI5030ZL	LA5030ZL
	400	version 1	LL5040	LI5040	LA5040
		version 2	LL5040HDZ	LI5040HDZ	LA5040HDZ
		version 3	LL5040INOX	–	–
		version 4	LL5040ZL	LI5040ZL	LA5040ZL
	500	version 1	LL5050	LI5050	LA5050
		version 2	LL5050HDZ	LI5050HDZ	LA5050HDZ
		version 3	LL5050INOX	–	–
		version 4	LL5050ZL	LI5050ZL	LA5050ZL
	600	version 1	LL5060	LI5060	LA5060
		version 2	LL5060HDZ	LI5060HDZ	LA5060HDZ
		version 3	LL5060INOX	–	–
		version 4	LL5060ZL	LI5060ZL	LA5060ZL



Height, mm	Width, mm	Version	Bend 45° R300	Bend 45° R600	Bend 90° R300	Bend 90° R600	T-branch	Cross-over	Adjustable vertical joint
50	200	version 1	LC0532	LC0562	LC5320	LC5620	LT5302	LX5302	LE5002
		version 2	LC0532HDZ	LC0562HDZ	LC5320HDZ	LC5620HDZ	LT5302HDZ	LX5302HDZ	LE5002HDZ
		version 3	LC0532INOX	LC0562INOX	LC5320INOX	LC5620INOX	LT5302INOX	LX5302INOX	LE5002INOX
		version 4	LC0532ZL	LC0562ZL	LC5320ZL	LC5620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	300	version 1	LC0533	LC0563	LC5330	LC5630	LT5303	LX5303	LE5003
		version 2	LC0533HDZ	LC0563HDZ	LC5330HDZ	LC5630HDZ	LT5303HDZ	LX5303HDZ	LE5003HDZ
		version 3	LC0533INOX	LC0563INOX	LC5330INOX	LC5630INOX	LT5303INOX	LX5303INOX	LE5003INOX
		version 4	LC0532ZL	LC0562ZL	LC5320ZL	LC5620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	400	version 1	LC0534	LC0564	LC5340	LC5640	LT5304	LX5304	LE5004
		version 2	LC0534HDZ	LC0564HDZ	LC5340HDZ	LC5640HDZ	LT5304HDZ	LX5304HDZ	LE5004HDZ
		version 3	LC0534INOX	LC0564INOX	LC5340INOX	LC5640INOX	LT5304INOX	LX5304INOX	LE5004INOX
		version 4	LC0532ZL	LC0562ZL	LC5320ZL	LC5620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	500	version 1	LC0535	LC0565	LC5350	LC5650	LT5305	LX5305	LE5005
		version 2	LC0535HDZ	LC0565HDZ	LC5350HDZ	LC5650HDZ	LT5305HDZ	LX5305HDZ	LE5005HDZ
		version 3	LC0535INOX	LC0565INOX	LC5350INOX	LC5650INOX	LT5305INOX	LX5305INOX	LE5005INOX
		version 4	LC0532ZL	LC0562ZL	LC5320ZL	LC5620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	600	version 1	LC0536	LC0566	LC5360	LC5660	LT5306	LX5306	LE5006
		version 2	LC0536HDZ	LC0566HDZ	LC5360HDZ	LC5660HDZ	LT5306HDZ	LX5306HDZ	LE5006HDZ
		version 3	LC0536INOX	LC0566INOX	LC5360INOX	LC5660INOX	LT5306INOX	LX5306INOX	LE5006INOX
		version 4	LC0536ZL	LC0566ZL	LC5360ZL	LC5660ZL	LT5306ZL	LX5306ZL	LE5006ZL

**Covers**


Width, mm	Version	Cover for straight element , 3000 mm
200	version 1	35524
	version 2	35524HDZ
	version 3	35524INOX
	version 4	35524ZL
300	version 1	35525
	version 2	35525HDZ
	version 3	35525INOX
	version 4	35525ZL
400	version 1	35526
	version 2	35526HDZ
	version 3	35526INOX
	version 4	35526ZL
500	version 1	35527
	version 2	35527HDZ
	version 3	35527INOX
	version 4	35527ZL
600	version 1	35528
	version 2	35528HDZ
	version 3	35528INOX
	version 4	35528ZL



Width, mm	Version	Cover for bend 45° R300	Cover for bend 45° R600	Cover for bend 90° R300	Cover for bend 90° R600	Cover for T-branch	Cover for cross-over	Cover for vertical joint
200	version 1	LK0230	LK0260	LK0023	LK0026	LK0203	LK2003	–
	version 2	LK0230HDZ	LK0260HDZ	LK0023HDZ	LK0026HDZ	LK0203HDZ	LK2003HDZ	–
	version 3	LK0230INOX	LK0260INOX	LK0023INOX	LK0026INOX	LK0203INOX	LK2003INOX	–
	version 4	LK0230ZL	LK0260ZL	LK0260ZL	LK0260ZL	LK0203ZL	LK2003ZL	–
300	version 1	LK0330	LK0360	LK0033	LK0036	LK0303	LK3003	–
	version 2	LK0330HDZ	LK0360HDZ	LK0033HDZ	LK0036HDZ	LK0303HDZ	LK3003HDZ	–
	version 3	LK0330INOX	LK0360INOX	LK0033INOX	LK0036INOX	LK0303INOX	LK3003INOX	–
	version 4	LK0330ZL	LK0360ZL	LK0033ZL	LK0036ZL	LK0303ZL	LK3003ZL	–
400	version 1	LK0430	LK0460	LK0043	LK0046	LK0403	LK4003	–
	version 2	LK0430HDZ	LK0460HDZ	LK0043HDZ	LK0046HDZ	LK0403HDZ	LK4003HDZ	–
	version 3	LK0430INOX	LK0460INOX	LK0043INOX	LK0046INOX	LK0403INOX	LK4003INOX	–
	version 4	LK0430ZL	LK0460ZL	LK0043ZL	LK0046ZL	LK0403ZL	LK4003ZL	–
500	version 1	LK0530	LK0560	LK0053	LK0056	LK0503	LK5003	–
	version 2	LK0530HDZ	LK0560HDZ	LK0053HDZ	LK0056HDZ	LK0503HDZ	LK5003HDZ	–
	version 3	LK0530INOX	LK0560INOX	LK0053INOX	LK0056INOX	LK0503INOX	LK5003INOX	–
	version 4	LK0530ZL	LK0560ZL	LK0053ZL	LK0056ZL	LK0503ZL	LK5003ZL	–
600	version 1	LK0630	LK0660	LK0063	LK0066	LK0603	LK6003	–
	version 2	LK0630HDZ	LK0660HDZ	LK0063HDZ	LK0066HDZ	LK0603HDZ	LK6003HDZ	–
	version 3	LK0630INOX	LK0660INOX	LK0063INOX	LK0066INOX	LK0603INOX	LK6003INOX	–
	version 4	LK0630ZL	LK0660ZL	LK0063ZL	LK0066ZL	LK0603ZL	LK6003ZL	–



## System accessories 80 mm high

### Version:

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height, mm	Width, mm	Version	Straight element, 3000 mm, "Standard"	Straight element, 3000 mm, "Plus"	Straight element, 6000 mm
80	200	version 1	LL8020	LI8020	LA8020
		version 2	LL8020HDZ	LI8020HDZ	LA8020HDZ
		version 3	LL8020INOX	–	–
		version 4	LL8020ZL	LI8020ZL	LA8020ZL
	300	version 1	LL8030	LI8030	LA8030
		version 2	LL8030HDZ	LI8030HDZ	LA8030HDZ
		version 3	LL8030INOX	–	–
		version 4	LL8030ZL	LI8030ZL	LA8030ZL
	400	version 1	LL8040	LI8040	LA8040
		version 2	LL8040HDZ	LI8040HDZ	LA8040HDZ
		version 3	LL8040INOX	–	–
		version 4	LL8040ZL	LI8040ZL	LA8040ZL
	500	version 1	LL8050	LI8050	LA8050
		version 2	LL8050HDZ	LI8050HDZ	LA8050HDZ
		version 3	LL8050INOX	–	–
		version 4	LL8050ZL	LI8050ZL	LA8050ZL
	600	version 1	LL8060	LI8060	LA8060
		version 2	LL8060HDZ	LI8060HDZ	LA8060HDZ
		version 3	LL8060INOX	–	–
		version 4	LL8060ZL	LI8060ZL	LA8060ZL



Height, mm	Width, mm	Version	Bend 45° R300	Bend 45° R600	Bend 90° R300	Bend 90° R600	T-branch	Cross-over	Adjustable vertical joint
80	200	version 1	LC0832	LC0862	LC8320	LC8620	LT8302	LX8302	LE8002
		version 2	LC0832HDZ	LC0862HDZ	LC8320HDZ	LC8620HDZ	LT8302HDZ	LX8302HDZ	LE8002HDZ
		version 3	LC0832INOX	LC0862INOX	LC8320INOX	LC8620INOX	LT8302INOX	LX8302INOX	LE8002INOX
		version 4	LC0832ZL	LC0862ZL	LC8320ZL	LC8620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	300	version 1	LC0833	LC0863	LC8330	LC8630	LT8303	LX8303	LE8003
		version 2	LC0833HDZ	LC0863HDZ	LC8330HDZ	LC8630HDZ	LT8303HDZ	LX8303HDZ	LE8003HDZ
		version 3	LC0833INOX	LC0863INOX	LC8330INOX	LC8630INOX	LT8303INOX	LX8303INOX	LE8003INOX
		version 4	LC0832ZL	LC0862ZL	LC8320ZL	LC8620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	400	version 1	LC0834	LC0864	LC8340	LC8640	LT8304	LX8304	LE8004
		version 2	LC0834HDZ	LC0864HDZ	LC8340HDZ	LC8640HDZ	LT8304HDZ	LX8304HDZ	LE8004HDZ
		version 3	LC0834INOX	LC0864INOX	LC8340INOX	LC8640INOX	LT8304INOX	LX8304INOX	LE8004INOX
		version 4	LC0832ZL	LC0862ZL	LC8320ZL	LC8620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	500	version 1	LC0835	LC0865	LC8350	LC8650	LT8305	LX8305	LE8005
		version 2	LC0835HDZ	LC0865HDZ	LC8350HDZ	LC8650HDZ	LT8305HDZ	LX8305HDZ	LE8005HDZ
		version 3	LC0835INOX	LC0865INOX	LC8350INOX	LC8650INOX	LT8305INOX	LX8305INOX	LE8005INOX
		version 4	LC0832ZL	LC0862ZL	LC8320ZL	LC8620ZL	LT5302ZL	LX5302ZL	LE5002ZL
	600	version 1	LC0836	LC0866	LC8360	LC8660	LT8306	LX8306	LE8006
		version 2	LC0836HDZ	LC0866HDZ	LC8360HDZ	LC8660HDZ	LT8306HDZ	LX8306HDZ	LE8006HDZ
		version 3	LC0836INOX	LC0866INOX	LC8360INOX	LC8660INOX	LT8306INOX	LX8306INOX	LE8006INOX
		version 4	LC0836ZL	LC0866ZL	LC8360ZL	LC8660ZL	LT8306ZL	LX8306ZL	LE8006ZL

**Covers**


Width, mm	Version	Cover for straight element , 3000 mm
200	version 1	35524
	version 2	35524HDZ
	version 3	35524INOX
	version 4	35524ZL
300	version 1	35525
	version 2	35525HDZ
	version 3	35525INOX
	version 4	35525ZL
400	version 1	35526
	version 2	35526HDZ
	version 3	35526INOX
	version 4	35526ZL
500	version 1	35527
	version 2	35527HDZ
	version 3	35527INOX
	version 4	35527ZL
600	version 1	35528
	version 2	35528HDZ
	version 3	35528INOX
	version 4	35528ZL



Width, mm	Version	Cover for bend 45° R300	Cover for bend 45° R600	Cover for bend 90° R300	Cover for bend 90° R600	Cover for T-branch	Cover for cross-over	Cover for vertical joint
200	version 1	LK0230	LK0260	LK0023	LK0026	LK0203	LK2003	–
	version 2	LK0230HDZ	LK0260HDZ	LK0023HDZ	LK0026HDZ	LK0203HDZ	LK2003HDZ	–
	version 3	LK0230INOX	LK0260INOX	LK0023INOX	LK0026INOX	LK0203INOX	LK2003INOX	–
	version 4	LK0230ZL	LK0260ZL	LK0260ZL	LK0260ZL	LK0203ZL	LK2003ZL	–
300	version 1	LK0330	LK0360	LK0033	LK0036	LK0303	LK3003	–
	version 2	LK0330HDZ	LK0360HDZ	LK0033HDZ	LK0036HDZ	LK0303HDZ	LK3003HDZ	–
	version 3	LK0330INOX	LK0360INOX	LK0033INOX	LK0036INOX	LK0303INOX	LK3003INOX	–
	version 4	LK0330ZL	LK0360ZL	LK0033ZL	LK0036ZL	LK0303ZL	LK3003ZL	–
400	version 1	LK0430	LK0460	LK0043	LK0046	LK0403	LK4003	–
	version 2	LK0430HDZ	LK0460HDZ	LK0043HDZ	LK0046HDZ	LK0403HDZ	LK4003HDZ	–
	version 3	LK0430INOX	LK0460INOX	LK0043INOX	LK0046INOX	LK0403INOX	LK4003INOX	–
	version 4	LK0430ZL	LK0460ZL	LK0043ZL	LK0046ZL	LK0403ZL	LK4003ZL	–
500	version 1	LK0530	LK0560	LK0053	LK0056	LK0503	LK5003	–
	version 2	LK0530HDZ	LK0560HDZ	LK0053HDZ	LK0056HDZ	LK0503HDZ	LK5003HDZ	–
	version 3	LK0530INOX	LK0560INOX	LK0053INOX	LK0056INOX	LK0503INOX	LK5003INOX	–
	version 4	LK0530ZL	LK0560ZL	LK0053ZL	LK0056ZL	LK0503ZL	LK5003ZL	–
600	version 1	LK0630	LK0660	LK0063	LK0066	LK0603	LK6003	–
	version 2	LK0630HDZ	LK0660HDZ	LK0063HDZ	LK0066HDZ	LK0603HDZ	LK6003HDZ	–
	version 3	LK0630INOX	LK0660INOX	LK0063INOX	LK0066INOX	LK0603INOX	LK6003INOX	–
	version 4	LK0630ZL	LK0660ZL	LK0063ZL	LK0066ZL	LK0603ZL	LK6003ZL	–

## System accessories 100 mm high

### Version:

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 3 – AISI 304 stainless steel;  
version 4 – zinc-lamellar coating.



Height, mm	Width, mm	Version	Straight element, 3000 mm, "Standard"	Straight element, 6000 mm
100	200	version 1	LL1020	LA1020
		version 2	LL1020HDZ	LA1020HDZ
		version 3	LL1020INOX	–
		version 4	LL1020ZL	LA1020ZL
	300	version 1	LL1030	LA1030
		version 2	LL1030HDZ	LA1030HDZ
		version 3	LL1030INOX	–
		version 4	LL1030ZL	LA1030ZL
	400	version 1	LL1040	LA1040
		version 2	LL1040HDZ	LA1040HDZ
		version 3	LL1040INOX	–
		version 4	LL1040ZL	LA1040ZL
	500	version 1	LL1050	LA1050
		version 2	LL1050HDZ	LA1050HDZ
		version 3	LL1050INOX	–
		version 4	LL1050ZL	LA1050ZL
	600	version 1	LL1060	LA1060
		version 2	LL1060HDZ	LA1060HDZ
		version 3	LL1060INOX	–
		version 4	LL1060ZL	LA1060ZL



Height, mm	Width, mm	Version	Bend 45° R300	Bend 45° R600	Bend 90° R300	Bend 90° R600	T-branch	Cross-over	Adjustable vertical joint
100	200	version 1	LC0132	LC0162	LC1320	LC1620	LT1302	LX1302	LE1002
		version 2	LC0132HDZ	LC0162HDZ	LC1320HDZ	LC1620HDZ	LT1302HDZ	LX1302HDZ	LE1002HDZ
		version 3	LC0132INOX	LC0162INOX	LC1320INOX	LC1620INOX	LT1302INOX	LX1302INOX	LE1002INOX
		version 4	LC0132ZL	LC0162ZL	LC1320ZL	LC1620ZL	LT1302ZL	LX1302ZL	LE1002ZL
	300	version 1	LC0133	LC0163	LC1330	LC1630	LT1303	LX1303	LE1003
		version 2	LC0133HDZ	LC0163HDZ	LC1330HDZ	LC1630HDZ	LT1303HDZ	LX1303HDZ	LE1003HDZ
		version 3	LC0133INOX	LC0163INOX	LC1330INOX	LC1630INOX	LT1303INOX	LX1303INOX	LE1003INOX
		version 4	LC0132ZL	LC0162ZL	LC1320ZL	LC1620ZL	LT1302ZL	LX1302ZL	LE1002ZL
	400	version 1	LC0134	LC0164	LC1340	LC1640	LT1304	LX1304	LE1004
		version 2	LC0134HDZ	LC0164HDZ	LC1340HDZ	LC1640HDZ	LT1304HDZ	LX1304HDZ	LE1004HDZ
		version 3	LC0134INOX	LC0164INOX	LC1340INOX	LC1640INOX	LT1304INOX	LX1304INOX	LE1004INOX
		version 4	LC0132ZL	LC0162ZL	LC1320ZL	LC1620ZL	LT1302ZL	LX1302ZL	LE1002ZL
	500	version 1	LC0135	LC0165	LC1350	LC1650	LT1305	LX1305	LE1005
		version 2	LC0135HDZ	LC0165HDZ	LC1350HDZ	LC1650HDZ	LT1305HDZ	LX1305HDZ	LE1005HDZ
		version 3	LC0135INOX	LC0165INOX	LC1350INOX	LC1650INOX	LT1305INOX	LX1305INOX	LE1005INOX
		version 4	LC0132ZL	LC0162ZL	LC1320ZL	LC1620ZL	LT1302ZL	LX1302ZL	LE1002ZL
	600	version 1	LC0136	LC0166	LC1360	LC1660	LT1306	LX1306	LE1006
		version 2	LC0136HDZ	LC0166HDZ	LC1360HDZ	LC1660HDZ	LT1306HDZ	LX1306HDZ	LE1006HDZ
		version 3	LC0136INOX	LC0166INOX	LC1360INOX	LC1660INOX	LT1306INOX	LX1306INOX	LE1006INOX
		version 4	LC0132ZL	LC0162ZL	LC1320ZL	LC1620ZL	LT1302ZL	LX1302ZL	LE1002ZL

## Covers



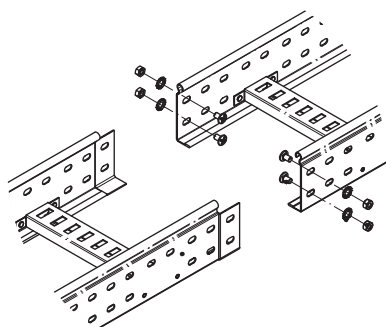
Width, mm	Version	Cover for straight element , 3000 mm
200	version 1	35524
	version 2	35524HDZ
	version 3	35524INOX
	version 4	35524ZL
300	version 1	35525
	version 2	35525HDZ
	version 3	35525INOX
	version 4	35525ZL
400	version 1	35526
	version 2	35526HDZ
	version 3	35526INOX
	version 4	35526ZL
500	version 1	35527
	version 2	35527HDZ
	version 3	35527INOX
	version 4	35527ZL
600	version 1	35528
	version 2	35528HDZ
	version 3	35528INOX
	version 4	35528ZL



Width, mm	Version	Cover for bend 45° R300	Cover for bend 45° R600	Cover for bend 90° R300	Cover for bend 90° R600	Cover for T-branch	Cover for cross-over	Cover for vertical joint
200	version 1	LK0230	LK0260	LK0023	LK0026	LK0203	LK2003	–
	version 2	LK0230HDZ	LK0260HDZ	LK0023HDZ	LK0026HDZ	LK0203HDZ	LK2003HDZ	–
	version 3	LK0230INOX	LK0260INOX	LK0023INOX	LK0026INOX	LK0203INOX	LK2003INOX	–
	version 4	LK0230ZL	LK0260ZL	LK0260ZL	LK0260ZL	LK0203ZL	LK2003ZL	–
300	version 1	LK0330	LK0360	LK0033	LK0036	LK0303	LK3003	–
	version 2	LK0330HDZ	LK0360HDZ	LK0033HDZ	LK0036HDZ	LK0303HDZ	LK3003HDZ	–
	version 3	LK0330INOX	LK0360INOX	LK0033INOX	LK0036INOX	LK0303INOX	LK3003INOX	–
	version 4	LK0330ZL	LK0360ZL	LK0033ZL	LK0036ZL	LK0303ZL	LK3003ZL	–
400	version 1	LK0430	LK0460	LK0043	LK0046	LK0403	LK4003	–
	version 2	LK0430HDZ	LK0460HDZ	LK0043HDZ	LK0046HDZ	LK0403HDZ	LK4003HDZ	–
	version 3	LK0430INOX	LK0460INOX	LK0043INOX	LK0046INOX	LK0403INOX	LK4003INOX	–
	version 4	LK0430ZL	LK0460ZL	LK0043ZL	LK0046ZL	LK0403ZL	LK4003ZL	–
500	version 1	LK0530	LK0560	LK0053	LK0056	LK0503	LK5003	–
	version 2	LK0530HDZ	LK0560HDZ	LK0053HDZ	LK0056HDZ	LK0503HDZ	LK5003HDZ	–
	version 3	LK0530INOX	LK0560INOX	LK0053INOX	LK0056INOX	LK0503INOX	LK5003INOX	–
	version 4	LK0530ZL	LK0560ZL	LK0053ZL	LK0056ZL	LK0503ZL	LK5003ZL	–
600	version 1	LK0630	LK0660	LK0063	LK0066	LK0603	LK6003	–
	version 2	LK0630HDZ	LK0660HDZ	LK0063HDZ	LK0066HDZ	LK0603HDZ	LK6003HDZ	–
	version 3	LK0630INOX	LK0660INOX	LK0063INOX	LK0066INOX	LK0603INOX	LK6003INOX	–
	version 4	LK0630ZL	LK0660ZL	LK0063ZL	LK0066ZL	LK0603ZL	LK6003ZL	–

## Installation chart

### "Male-female" connection

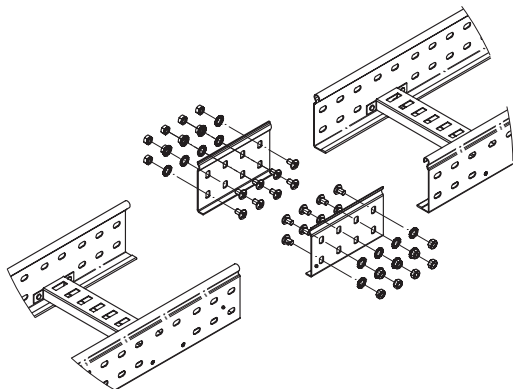


#### Description:

Fastening of trays using male-female connection is performed with metalware. Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	2	CM010610
	hex nut M6	2	CM110600
	toothed lock washer M6	2	CM220600
80	square neck bolt M6x10	4	CM010610
	hex nut M6	4	CM110600
	toothed lock washer M6	4	CM220600
100	square neck bolt M6x10	4	CM010610
	hex nut M6	4	CM110600
	toothed lock washer M6	4	CM220600

### Connection of uniform ends and cut edges

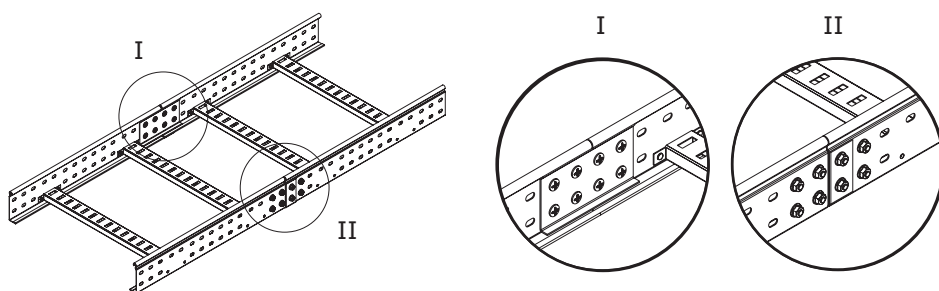


#### Description:

To connect uniform ends and cut edges the reinforced horizontal joints GTO L are used. Joints are fixed to the internal side of longerons. Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	8	CM010610
	hex nut M6	8	CM110600
	toothed lock washer M6	8	CM220600
	reinforced horizontal joint, GTO L	2	LG5000
80	square neck bolt M6x10	16	CM010610
	hex nut M6	16	CM110600
	toothed lock washer M6	16	CM220600
	reinforced horizontal joint, GTO L	2	LG8000
100	square neck bolt M6x10	16	CM010610
	hex nut M6	16	CM110600
	toothed lock washer M6	16	CM220600
	reinforced horizontal joint, GTO L	2	LG1000

## Reinforced connection



### Description:

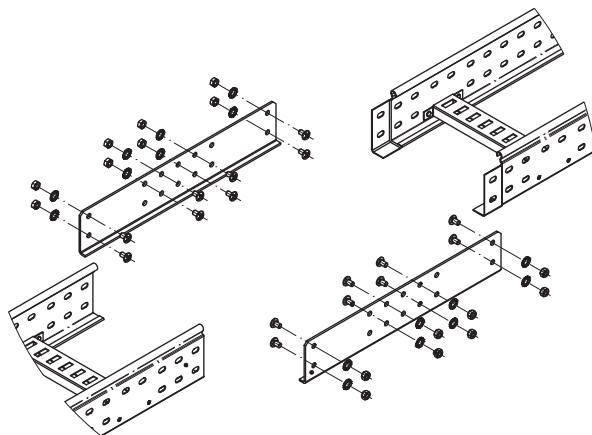
To increase bearing capacity of a route part the reinforced joints GTO L are used.

The connectors are fixed to the internal side of longeron additionally to "male-female" connection.

Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	8	CM010610
	hex nut M6	8	CM110600
	toothed lock washer M6	8	CM220600
	reinforced horizontal joint, GTO L	2	LG5000
80	square neck bolt M6x10	16	CM010610
	hex nut M6	16	CM110600
	toothed lock washer M6	16	CM220600
	reinforced horizontal joint, GTO L	2	LG8000
100	square neck bolt M6x10	16	CM010610
	hex nut M6	16	CM110600
	toothed lock washer M6	16	CM220600
	reinforced horizontal joint, GTO L	2	LG1000

## External joint



### Description:

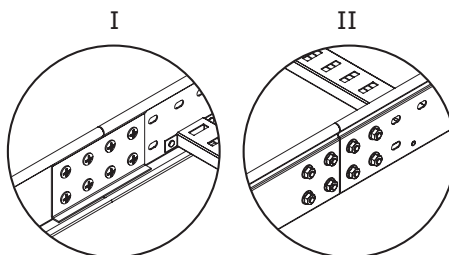
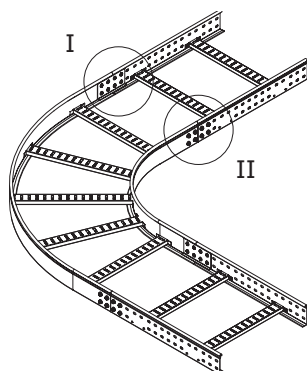
To connect high loaded parts of the route on runs more than 4 meters the external joints are used.

The joints GTO LI are fixed to the external side of a ladder tray additionally to "male-female" connection "male-female".

Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	14	CM010610
	hex nut M6	14	CM110600
	toothed lock washer M6	14	CM220600
	external joint, GTO 50 LI	2	LG5200
80	square neck bolt M6x10	28	CM010610
	hex nut M6	28	CM110600
	toothed lock washer M6	28	CM220600
	external joint, GTO 80 LI	2	LG8200
100	square neck bolt M6x10	28	CM010610
	hex nut M6	28	CM110600
	toothed lock washer M6	28	CM220600
	external joint, GTO 100 LI	2	LG1200

## 45° and 90° horizontal bends

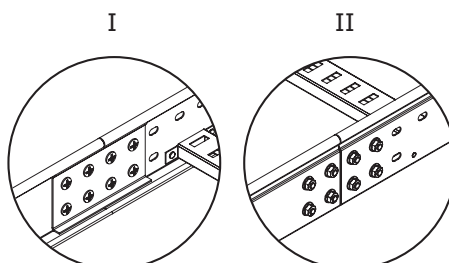
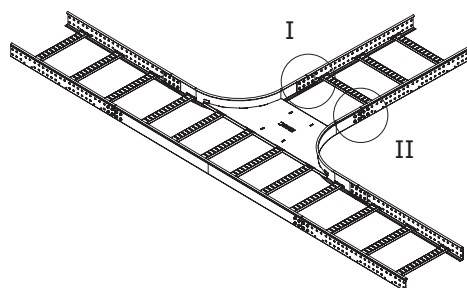


### Description:

To make horizontal bends reinforced joints GTO L are used.  
Joints are fixed to the internal side of longerons.  
Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	16	CM010610
	hex nut M6	16	CM110600
	toothed lock washer M6	16	CM220600
	reinforced horizontal joint, GTO L	4	LG5000
80	square neck bolt M6x10	32	CM010610
	hex nut M6	32	CM110600
	toothed lock washer M6	32	CM220600
	reinforced horizontal joint, GTO L	4	LG8000
100	square neck bolt M6x10	32	CM010610
	hex nut M6	32	CM110600
	toothed lock washer M6	32	CM220600
	reinforced horizontal joint, GTO L	4	LG1000

## T-branch

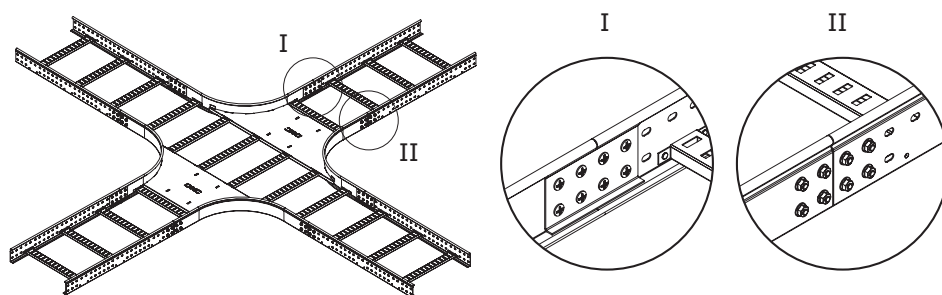


### Description:

To make a T-branch reinforced joints GTO L are used.  
Joints are fixed to the internal side of longerons.  
Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	24	CM010610
	hex nut M6	24	CM110600
	toothed lock washer M6	24	CM220600
	reinforced horizontal joint, GTO L	6	LG5000
80	square neck bolt M6x10	48	CM010610
	hex nut M6	48	CM110600
	toothed lock washer M6	48	CM220600
	reinforced horizontal joint, GTO L	6	LG8000
100	square neck bolt M6x10	48	CM010610
	hex nut M6	48	CM110600
	toothed lock washer M6	48	CM220600
	reinforced horizontal joint, GTO L	6	LG1000

## X-branch

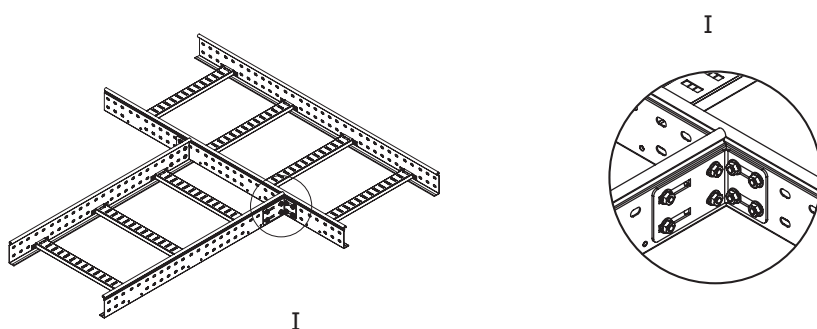


### Description:

To make an TX branch reinforced joints GTO L are used.  
Joints are fixed to the internal side of longerons.  
Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	32	CM010610
	hex nut M6	32	CM110600
	toothed lock washer M6	32	CM220600
	reinforced horizontal joint, GTO L	8	LG5000
80	square neck bolt M6x10	64	CM010610
	hex nut M6	64	CM110600
	toothed lock washer M6	64	CM220600
	reinforced horizontal joint, GTO L	8	LG8000
100	square neck bolt M6x10	64	CM010610
	hex nut M6	64	CM110600
	toothed lock washer M6	64	CM220600
	reinforced horizontal joint, GTO L	8	LG1000

## T-branch (simple)



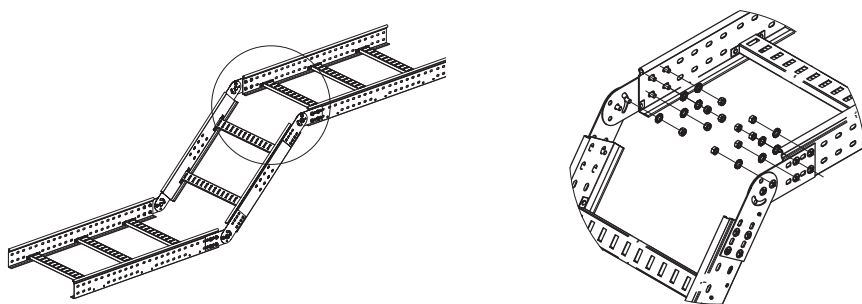
### Description:

T-branch represents two trays which are perpendicularly connected.  
Wall fasteners are required.  
Fasteners are fixed to the external part of trays.  
Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	8	CM010610
	hex flange nut M6	8	CM100600
	toothed lock washer M6	8	CM220600
	wall fixing plate (bracket)	2	LP5000
80	square neck bolt M6x10	16	CM010610
	hex flange nut M6	16	CM100600
	toothed lock washer M6	16	CM220600
	wall fixing plate (bracket)	2	LP5000
100	square neck bolt M6x10	16	CM010610
	hex flange nut M6	16	CM100600
	toothed lock washer M6	16	CM220600
	wall fixing plate (bracket)	2	LP5000



## Vertical adjustable bend

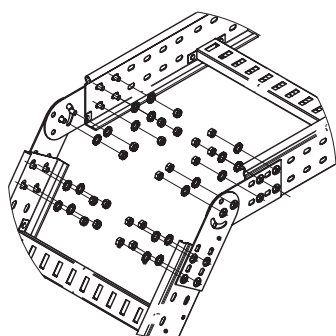


### Description:

Only metalware is required for mounting Nuts are fixed to the external surface of longeron. After mounting the hinges are fixed at the necessary angle with screw and nut.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	12	CM010610
	hex nut M6	12	CM110600
	toothed lock washer M6	12	CM220600
80	square neck bolt M6x10	20	CM010610
	hex nut M6	20	CM110600
	toothed lock washer M6	20	CM220600
100	square neck bolt M6x10	20	CM010610
	hex nut M6	20	CM110600
	toothed lock washer M6	20	CM220600

## Articulated vertical joint

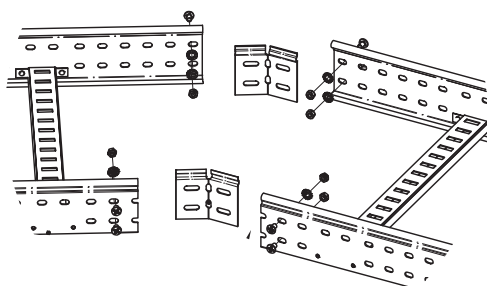


### Description:

Vertical joints are used to bend a route at an optional angle. Joints are fixed to the external part of each longeron and then connected together. After mounting the hinges are fixed at the necessary angle with screw and nut. Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	12	CM010610
	hex nut M6	12	CM110600
	toothed lock washer M6	12	CM220600
	adjustable vertical joint GSV	4	30013
80	square neck bolt M6x10	20	CM010610
	hex nut M6	20	CM110600
	toothed lock washer M6	20	CM220600
	adjustable vertical joint GSV	4	30014
100	square neck bolt M6x10	20	CM010610
	hex nut M6	20	CM110600
	toothed lock washer M6	20	CM220600
	adjustable vertical joint GSV	4	30015

## Horizontal route bend

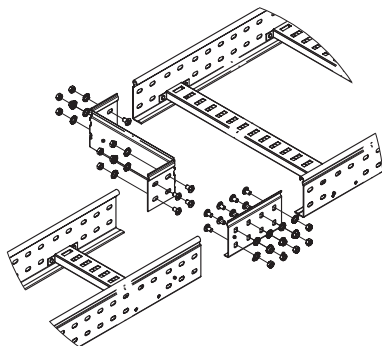


### Description:

To bend a route in the horizontal plane adjustable horizontal joints are used. Joints are fixed to the internal surface of longerons. Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	4	CM010610
	hex nut M6	4	CM110600
	toothed lock washer M6	4	CM220600
	internal adjustable horizontal joint	2	LP0050
80	square neck bolt M6x10	8	CM010610
	hex nut M6	8	CM110600
	toothed lock washer M6	8	CM220600
	internal adjustable horizontal joint	2	LP0080
100	square neck bolt M6x10	8	CM010610
	hex nut M6	8	CM110600
	toothed lock washer M6	8	CM220600
	internal adjustable horizontal joint	2	LP0100

## Connection of trays of different width

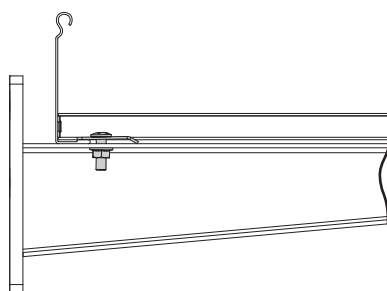
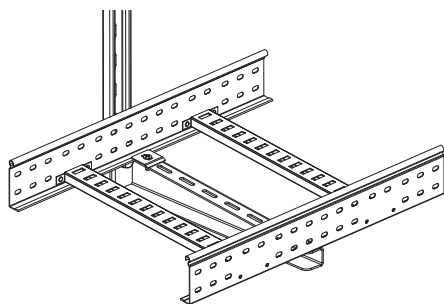


### Description:

To connect trays with different width reducers are used. For the connection of the trays of a different width simple reducers are. The reducers are delivered unbent and they are to be preliminary bent before the mounting. The reducer is mounted on the internal side of longeron. The reinforced joint GTO L of the appropriate height is mounted on the opposite longeron. The mounting of the reducers is possible from two sides of the tray – two-sided reducer. Nuts are fixed to the external surface of longeron.

Height, mm	Fastener description	Quantity, pcs.	Code
50	square neck bolt M6x10	4	CM010610
	hex nut M6	4	CM110600
	toothed lock washer M6	4	CM220600
	reinforced joint GTO L	1	LG5000
80	square neck bolt M6x10	8	CM010610
	hex nut M6	8	CM110600
	toothed lock washer M6	8	CM220600
	reinforced joint GTO L	1	LG8000
100	square neck bolt M6x10	8	CM010610
	hex nut M6	8	CM110600
	toothed lock washer M6	8	CM220600
	reinforced joint GTO L	1	LG1000

## Fixing to console

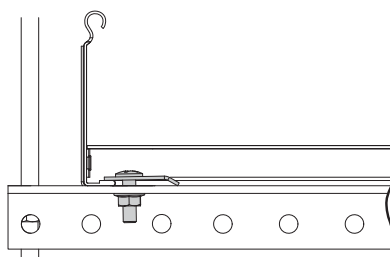
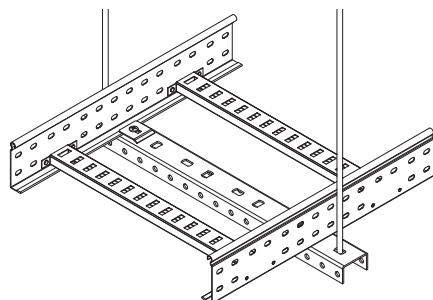


### Description:

The trays are fixed to the consoles with clamps.  
The brackets are fixed to the internal side of longeron. The nuts are fixed to the lower side of consoles.

Fastener description	Quantity, pcs.	Code
Mushroom head square neck bolt M6x20	2	CM010620
Hex flange nut M6	2	CM100600
Fixing bracket plate	2	LP1000

## Fixing to section

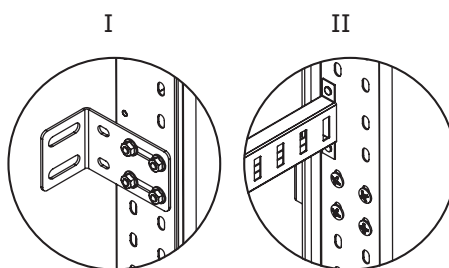
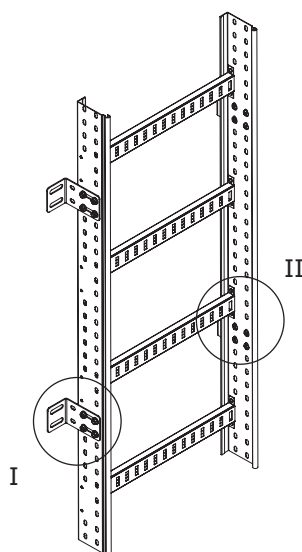


### Description:

The trays are fixed to sections with clamps.  
The brackets are fixed to the internal side of longeron. The nuts are fixed to the lower side of consoles.

Fastener description	Quantity, pcs.	Code
Mushroom head square neck bolt M6x20	2	CM010620
Hex flange nut M6	2	CM100600
Fixing bracket plate	2	LP1000

## Vertical mounting

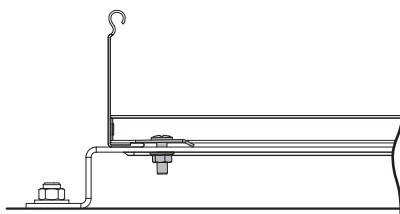
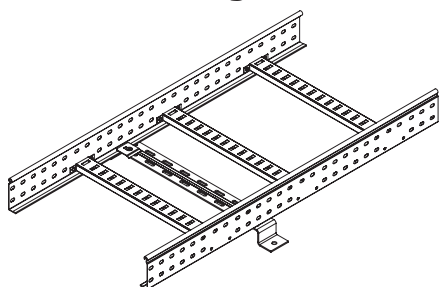


### Description:

The vertical mounting is made with the wall fixing elements.  
The fixing elements are mounted from the external side of the side walls.  
The distance between the elements is not more than 1 m.  
For the mounting of the fixing elements to the bearing surface the screw anchors are used.

Fastener description	Quantity, pcs.	Code
Square neck bolt M6x10	8	CM010610
Hex flange nut M6	8	CM100600
Wall fixing plate (bracket)	2	LP5000

## Floor mounting

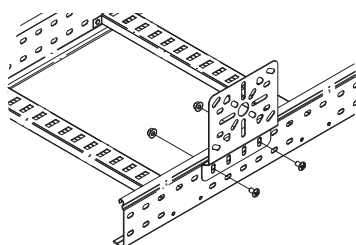


### Description:

For the floor mounting of the trays the fixing element TM is used.  
The trays are fixed to the element TM with the brackets. The brackets are fixed to the internal side of longeron. The nuts are situated from the lower side of the fixing element.

Fastener description	Quantity, pcs.	Code
Mushroom head square neck bolt M6x20	2	CM010620
Hex flange nut M6	2	CM100600
Fixing bracket plate	2	LP1000

## Vertical mounting plate

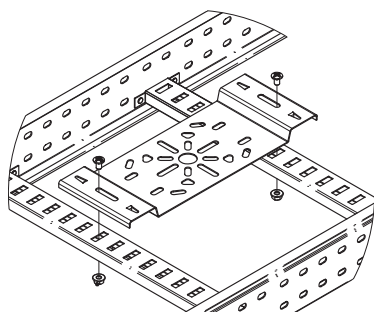


### Description:

Fixed to external side of longeron.  
Nuts are fixed to the external surface of longeron.

Fastener description	Quantity, pcs.	Code
Square neck bolt M6x10	2	CM010610
Hex flange nut M6	2	CM100600
Vertical mounting plate	1	LP3000

## Horizontal mounting plate

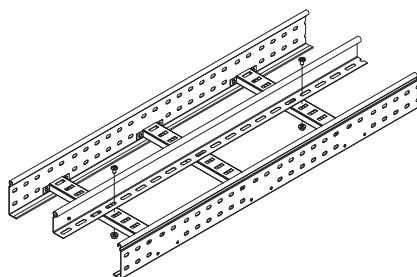


### Description:

It is mounted on the rungs of the tray. The nuts are fixed to the lower side of the rungs.

Fastener description	Quantity, pcs.	Code
Square neck bolt M6x10	2	CM010610
Hex flange nut M6	2	CM100600
Horizontal mounting plate	1	LP4000

## Divider SEP



### Description:

It is mounted on the rungs of the tray. Fixing pitch is 1-1,5 m.  
The nuts are fixed to the lower side of the rungs.  
For the mounting together with the cover you should select the rung height of a smaller size.

Fastener description	Quantity, pcs.	Code
Square neck bolt M6x10	3	CM010610
Hex flange nut M6	3	CM100600



## **Heavy-Duty cable ladder system "U5 Combitech"**

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<b>Heavy-Duty cable ladder .....</b>	<b>180</b>
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<b>Cable tray system accessories.....</b>	<b>197</b>
<b>Covers .....</b>	<b>202</b>
<b>Mounting accessories .....</b>	<b>205</b>
<b>Selection table .....</b>	<b>209</b>

## Heavy-Duty cable ladder system "U5 Combitech"

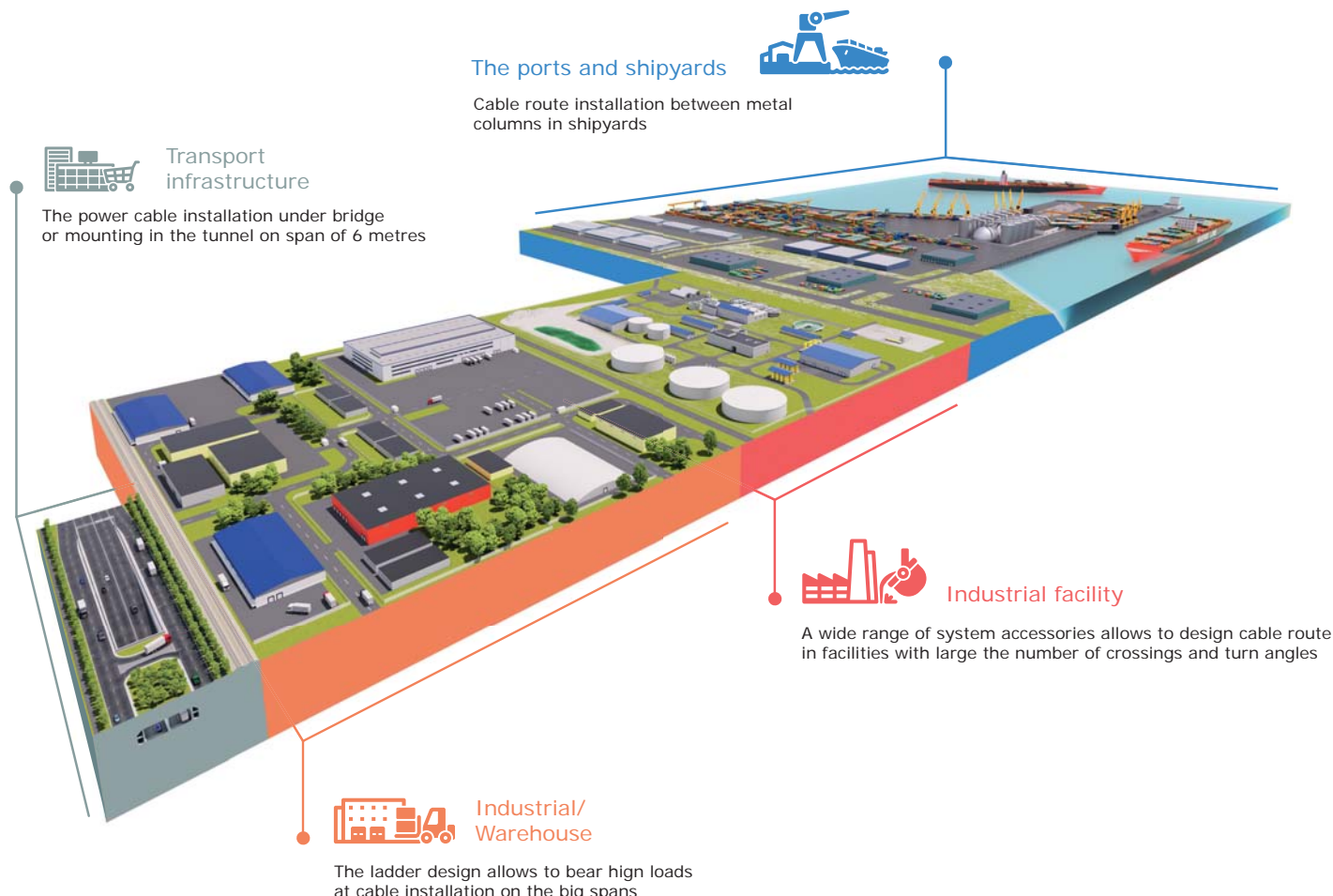
### Area of application

"U5 Combitech" is heavy-Duty cable ladder system for cable installation on big spans.

The heavy-duty ladder system construction is designed for reliable cable installation with high load on big spans on the facility.

The special construction of the longeron allows to install the ladders with the width up to 1 meter and the length up to 9 meter saving high load capacity.

The system is recommended for the use in the conditions where it is problematic to use ordinary ladder: in the areas with high wind and snow load, on the facility with high level of vibration.



### Distinctive features

#### 3 climatic versions

- steel, galvanized by Sendzimir method;
- post hot-dip galvanized steel;
- zinc-lamellar coat.

**Extremely high load bearing capacity**  
150 kg/m on 6 m span

**Additional stiffening ribs**  
Eliminates loss of wriggle instability

**"Dovetail" connection**  
Extremely high rates of vibration resistance and durability

#### 3 construction types

- ladder;
- tray perforated;
- tray non-perforated

**Temperature compensation system**  
Reliability of cable route at large and sudden temperature changes

#### Wide range of dimension types

- Straight elements up to 9 m long;
- side height up to 200 mm;
- width up to 1000 mm;
- steel thickness up to 2 mm



## Advantages

### High load bearing capacity

Possibility to install a large number of heavy cables in big spans.

### Wide choice

More than 2700 items in climatic versions allow to design complicated cable routes. None of the producers in the world has such an assortment.

### Smooth accessories geometry

The accessories longerons have the smooth bending. This allows to use most effectively the all volume of the accessory preventing cable from damage and providing a necessary radius of cable bending.

### "Dovetail" connection

Special flanges of the rungs and insert plates are bent from the external side of the longeron. This fixing method provides extremely high rates of vibration resistance and durability, and it also allows to avoid welding. This significantly extends operation life of the whole route.

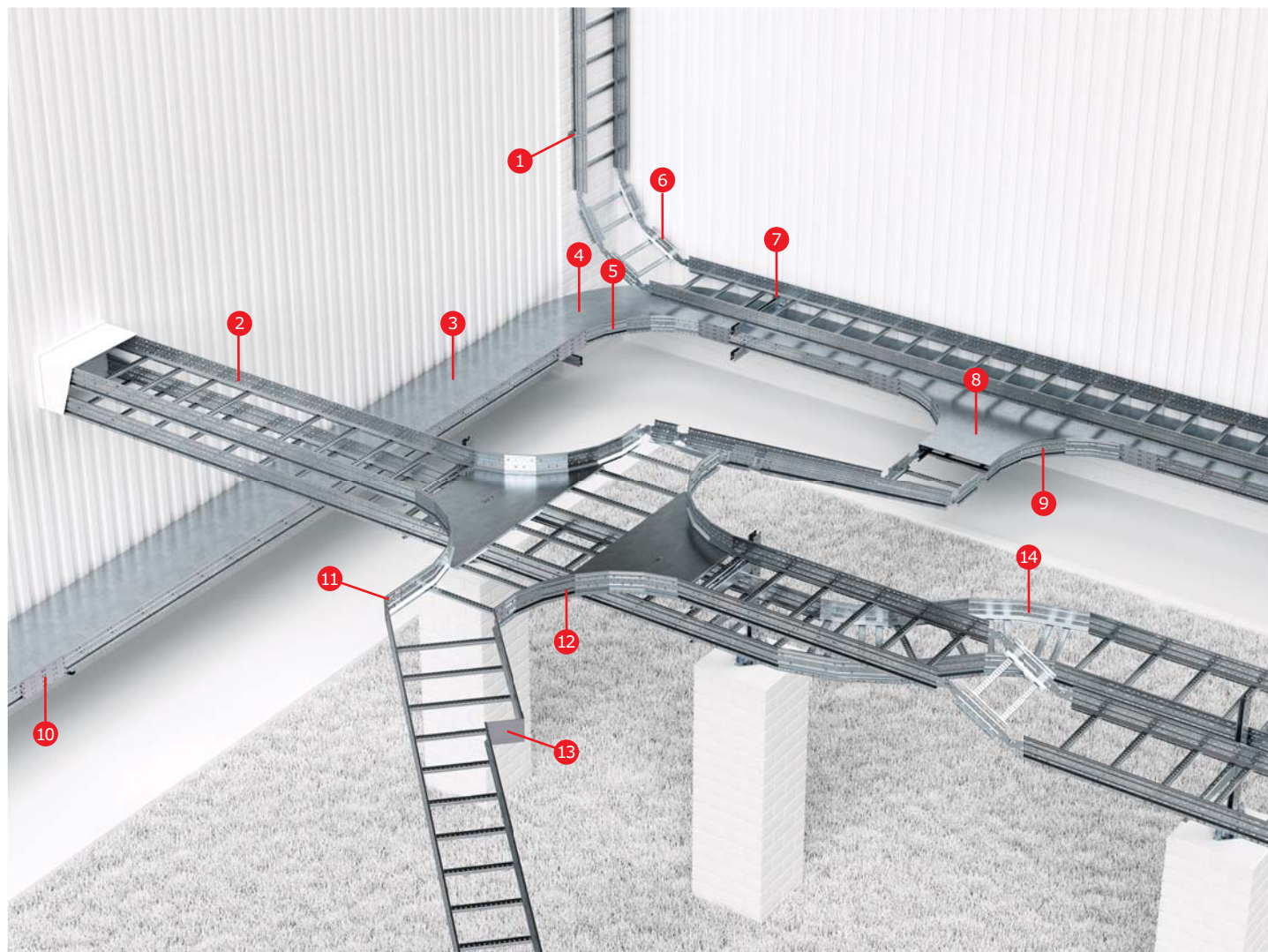
### Thermal compensation

Perforation of a special shape allows free motion and variable gap in the compounds of the elements. This ensures the safety of long-haul routes in thermal expansion of the metal.

### Certification

Numerous tests have confirmed the high quality of industrial ladders and their full compliance with all local and international standards and requirements of the Russian Maritime Register of Shipping.

## System components

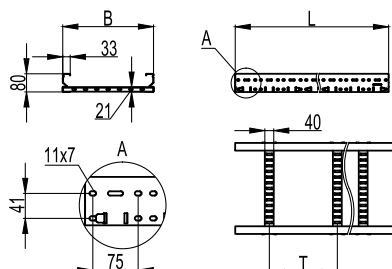


- 1 Vertical mounting
- 2 Straight element
- 3 Cover for straight element
- 4 Accessory cover
- 5 Bend 90°
- 6 Adjustable vertical joint
- 7 Hold-down clamp

- 8 Cover for accessory
- 9 T-branch
- 10 Horizontal connector
- 11 Angle joint
- 12 Cross-over
- 13 Reducer / stop-end
- 14 Bend 45°

## Heavy-Duty cable ladder

### Straight elements 80 mm high

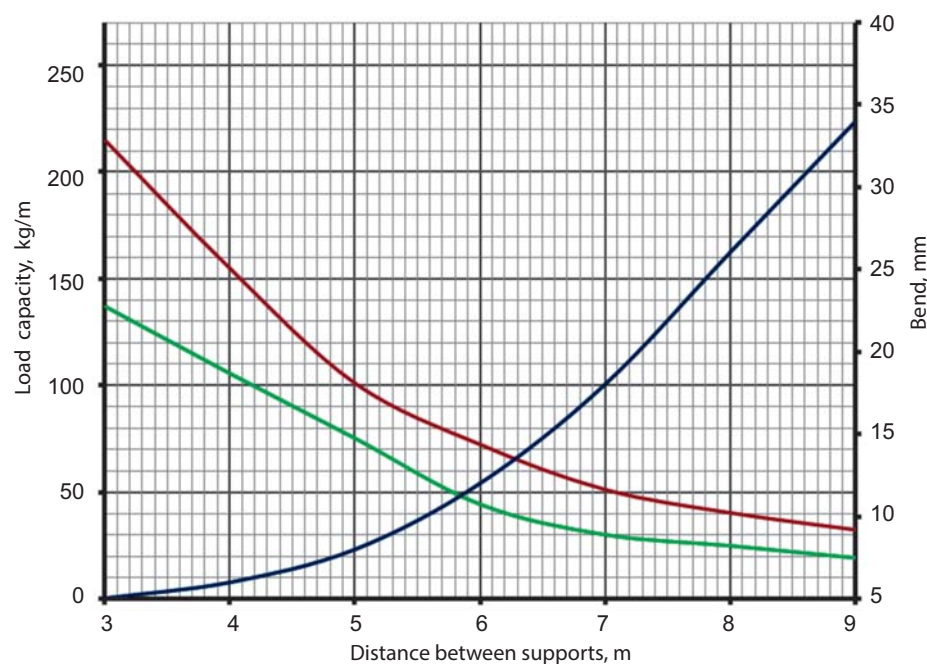


#### Purpose:

- cable installation on straight section;
- T=300 mm.

Height, mm	Longeron, mm	Width B, mm	Longeron step T, mm	TUA, mm <sup>2</sup>	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
80	1,5	200	300	12000	ULM382	ULM382HDZ	ULM382ZL	ULM682	ULM682HDZ	ULM682ZL
		300	300	18000	ULM383	ULM383HDZ	ULM383ZL	ULM683	ULM683HDZ	ULM683ZL
		400	300	24000	ULM384	ULM384HDZ	ULM384ZL	ULM684	ULM684HDZ	ULM684ZL
		500	300	30000	ULM385	ULM385HDZ	ULM385ZL	ULM685	ULM685HDZ	ULM685ZL
		600	300	36000	ULM386	ULM386HDZ	ULM386ZL	ULM686	ULM686HDZ	ULM686ZL
		700	200	42000	ULM387	ULM387HDZ	ULM387ZL	ULM687	ULM687HDZ	ULM687ZL
		800	200	48000	ULM388	ULM388HDZ	ULM388ZL	ULM688	ULM688HDZ	ULM688ZL
		900	200	54000	ULM389	ULM389HDZ	ULM389ZL	ULM689	ULM689HDZ	ULM689ZL
		1000	200	60000	ULM380	ULM380HDZ	ULM380ZL	ULM680	ULM680HDZ	ULM680ZL
	2,0	200	300	12000	ULH382	ULH382HDZ	ULH382ZL	ULH682	ULH682HDZ	ULH682ZL
		300	300	18000	ULH383	ULH383HDZ	ULH383ZL	ULH683	ULH683HDZ	ULH683ZL
		400	300	24000	ULH384	ULH384HDZ	ULH384ZL	ULH684	ULH684HDZ	ULH684ZL
		500	300	30000	ULH385	ULH385HDZ	ULH385ZL	ULH685	ULH685HDZ	ULH685ZL
		600	300	36000	ULH386	ULH386HDZ	ULH386ZL	ULH686	ULH686HDZ	ULH686ZL
		700	200	42000	ULH387	ULH387HDZ	ULH387ZL	ULH687	ULH687HDZ	ULH687ZL
		800	200	48000	ULH388	ULH388HDZ	ULH388ZL	ULH688	ULH688HDZ	ULH688ZL
		900	200	54000	ULH389	ULH389HDZ	ULH389ZL	ULH689	ULH689HDZ	ULH689ZL
		1000	200	60000	ULH380	ULH380HDZ	ULH380ZL	ULH680	ULH680HDZ	ULH680ZL

#### Load diagram



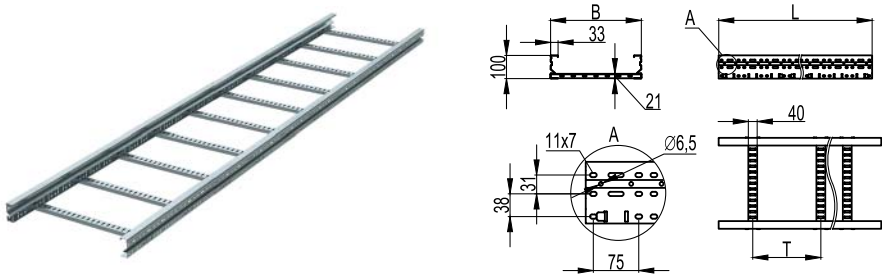
#### Safe working load test conditions:

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.

— Thickness of longeron 1,5 mm — Thickness of longeron 2 mm — Flexure, mm



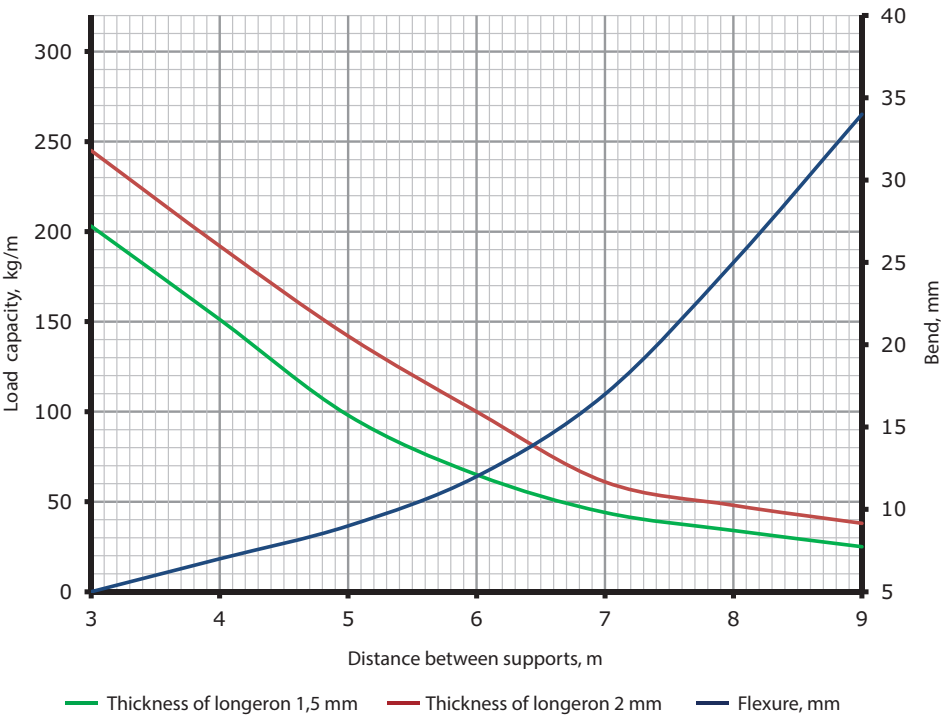
Straight elements 100 mm high



**Purpose:**  
• cable installation on straight section;  
• T=300 mm.

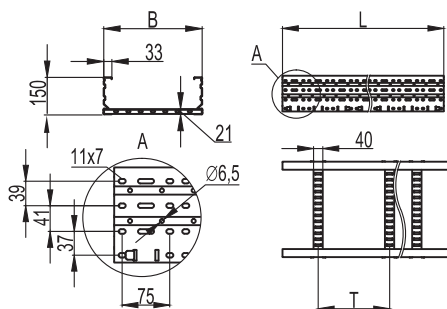
Height, mm	Longeron, mm	Width B, mm	Longeron step T, mm	TUA, mm²	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
100	1,5	200	300	16000	ULM312	ULM312HDZ	ULM312ZL	ULM612	ULM612HDZ	ULM612ZL
		300	300	24000	ULM313	ULM313HDZ	ULM313ZL	ULM613	ULM613HDZ	ULM613ZL
		400	300	32000	ULM314	ULM314HDZ	ULM314ZL	ULM614	ULM614HDZ	ULM614ZL
		500	300	40000	ULM315	ULM315HDZ	ULM315ZL	ULM615	ULM615HDZ	ULM615ZL
		600	300	48000	ULM316	ULM316HDZ	ULM316ZL	ULM616	ULM616HDZ	ULM616ZL
		700	200	56000	ULM317	ULM317HDZ	ULM317ZL	ULM617	ULM617HDZ	ULM617ZL
		800	200	64000	ULM318	ULM318HDZ	ULM318ZL	ULM618	ULM618HDZ	ULM618ZL
		900	200	72000	ULM319	ULM319HDZ	ULM319ZL	ULM619	ULM619HDZ	ULM619ZL
		1000	200	80000	ULM310	ULM310HDZ	ULM310ZL	ULM610	ULM610HDZ	ULM610ZL
	2,0	200	300	16000	ULH312	ULH312HDZ	ULH312ZL	ULH612	ULH612HDZ	ULH612ZL
		300	300	24000	ULH313	ULH313HDZ	ULH313ZL	ULH613	ULH613HDZ	ULH613ZL
		400	300	32000	ULH314	ULH314HDZ	ULH314ZL	ULH614	ULH614HDZ	ULH614ZL
		500	300	40000	ULH315	ULH315HDZ	ULH315ZL	ULH615	ULH615HDZ	ULH615ZL
		600	300	48000	ULH316	ULH316HDZ	ULH316ZL	ULH616	ULH616HDZ	ULH616ZL
		700	200	56000	ULH317	ULH317HDZ	ULH317ZL	ULH617	ULH617HDZ	ULH617ZL
		800	200	64000	ULH318	ULH318HDZ	ULH318ZL	ULH618	ULH618HDZ	ULH618ZL
		900	200	72000	ULH319	ULH319HDZ	ULH319ZL	ULH619	ULH619HDZ	ULH619ZL
		1000	200	80000	ULH310	ULH310HDZ	ULH310ZL	ULH610	ULH610 HDZ	ULH610 ZL

Load diagram



**Safe working load test conditions:**  
• the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);  
• assurance factor not less than 1,7 of declared load.

## Straight elements 150 mm high

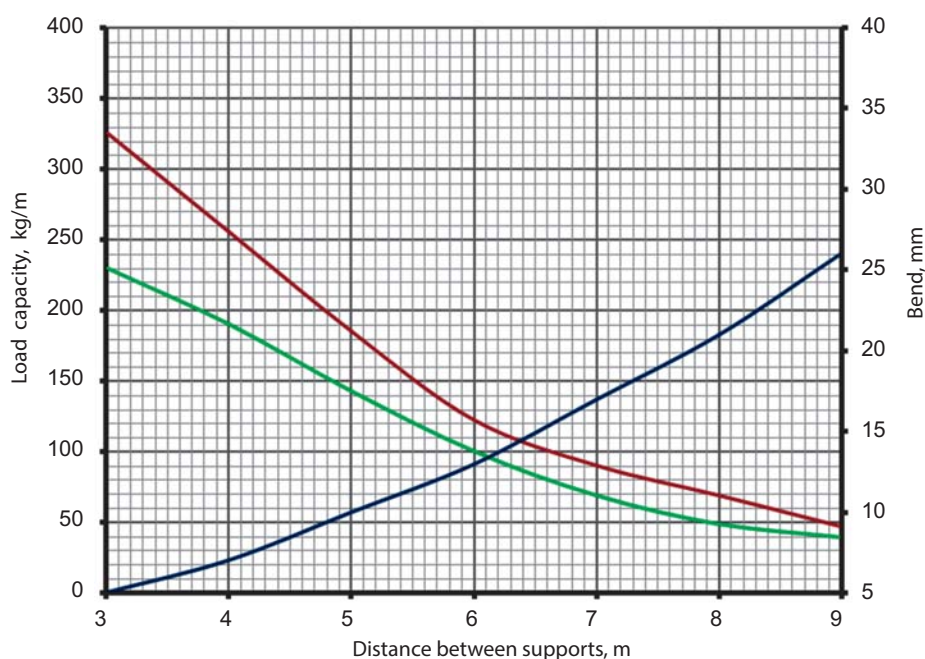


### Purpose:

- cable installation on straight section;
- T=300 mm.

Height, mm	Longeron, mm	Width B, mm	Longeron step T, mm	TUA, mm <sup>2</sup>	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
150	1,5	200	300	26000	ULM352	ULM352HDZ	ULM352ZL	ULM652	ULM652HDZ	ULM652ZL
		300	300	39000	ULM353	ULM353HDZ	ULM353ZL	ULM653	ULM653HDZ	ULM653ZL
		400	300	52000	ULM354	ULM354HDZ	ULM354ZL	ULM654	ULM654HDZ	ULM654ZL
		500	300	65000	ULM355	ULM355HDZ	ULM355ZL	ULM655	ULM655HDZ	ULM655ZL
		600	300	78000	ULM356	ULM356HDZ	ULM356ZL	ULM656	ULM656HDZ	ULM656ZL
		700	200	91000	ULM357	ULM357HDZ	ULM357ZL	ULM657	ULM657HDZ	ULM657ZL
		800	200	104000	ULM358	ULM358HDZ	ULM358ZL	ULM658	ULM658HDZ	ULM658ZL
		900	200	117000	ULM359	ULM359HDZ	ULM359ZL	ULM659	ULM659HDZ	ULM659ZL
		1000	200	130000	ULM350	ULM350HDZ	ULM350ZL	ULM650	ULM650HDZ	ULM650ZL
	2,0	200	300	26000	ULH352	ULH352HDZ	ULH352ZL	ULH652	ULH652HDZ	ULH652ZL
		300	300	39000	ULH353	ULH353HDZ	ULH353ZL	ULH653	ULH653HDZ	ULH653ZL
		400	300	52000	ULH354	ULH354HDZ	ULH354ZL	ULH654	ULH654HDZ	ULH654ZL
		500	300	65000	ULH355	ULH355HDZ	ULH355ZL	ULH655	ULH655HDZ	ULH655ZL
		600	300	78000	ULH356	ULH356HDZ	ULH356ZL	ULH656	ULH656HDZ	ULH656ZL
		700	200	91000	ULH357	ULH357HDZ	ULH357ZL	ULH657	ULH657HDZ	ULH657ZL
		800	200	104000	ULH358	ULH358HDZ	ULH358ZL	ULH658	ULH658HDZ	ULH658ZL
		900	200	117000	ULH359	ULH359HDZ	ULH359ZL	ULH659	ULH659HDZ	ULH659ZL
		1000	200	130000	ULH350	ULH350HDZ	ULH350ZL	ULH650	ULH650HDZ	ULH650ZL

## Load diagram

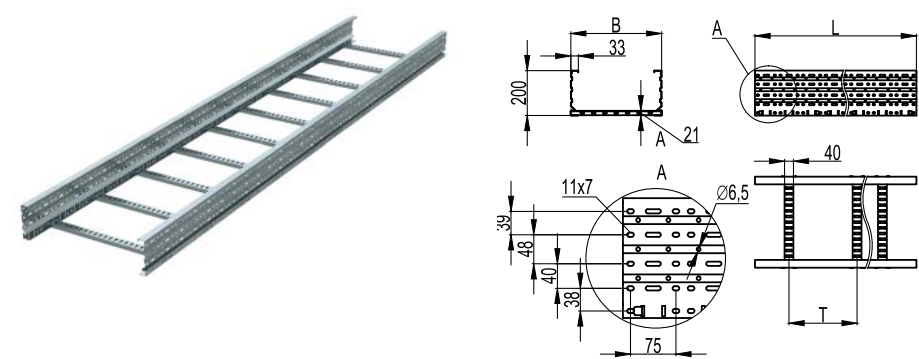


### Safe working load test conditions:

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.

— Thickness of longeron 1,5 mm — Thickness of longeron 2 mm — Flexure, mm

Straight elements 200 mm high

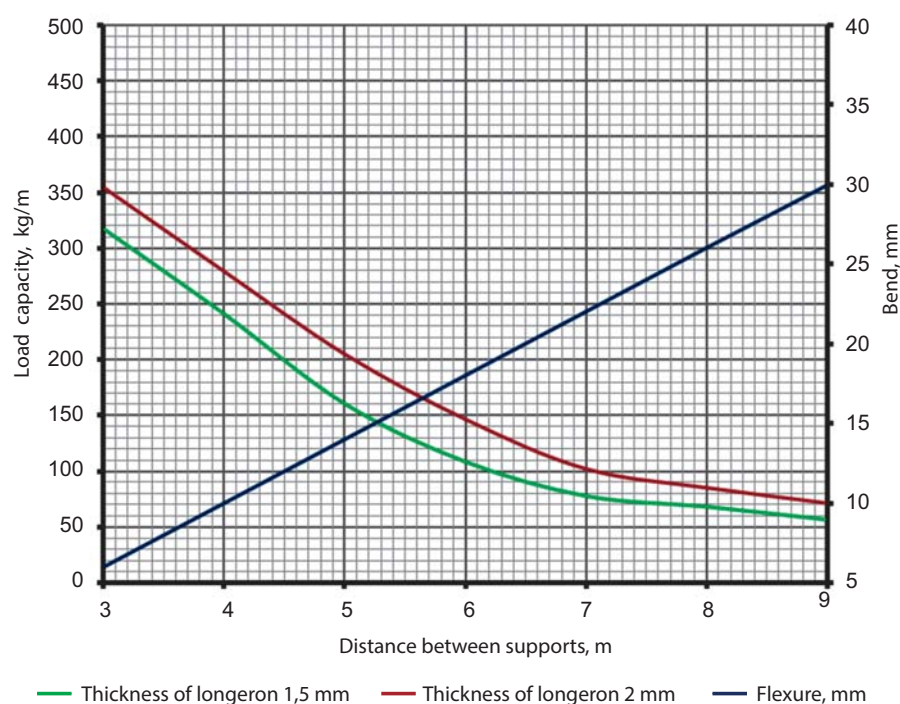


**Purpose:**

- cable installation on straight section;
- T=300 mm.

Height, mm	Longeron, mm	Width B, mm	Longeron step T, mm	TUA, mm <sup>2</sup>	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
200	1,5	200	300	36000	ULM322	ULM322HDZ	ULM322ZL	ULM622	ULM622HDZ	ULM622ZL
		300	300	54000	ULM323	ULM323HDZ	ULM323ZL	ULM623	ULM623HDZ	ULM623ZL
		400	300	72000	ULM324	ULM324HDZ	ULM324ZL	ULM624	ULM624HDZ	ULM624ZL
		500	300	90000	ULM325	ULM325HDZ	ULM325ZL	ULM625	ULM625HDZ	ULM625ZL
		600	300	108000	ULM326	ULM326HDZ	ULM326ZL	ULM626	ULM626HDZ	ULM626ZL
		700	200	126000	ULM327	ULM327HDZ	ULM327ZL	ULM627	ULM627HDZ	ULM627ZL
		800	200	144000	ULM328	ULM328HDZ	ULM328ZL	ULM628	ULM628HDZ	ULM628ZL
		900	200	162000	ULM329	ULM329HDZ	ULM329ZL	ULM629	ULM629HDZ	ULM629ZL
		1000	200	180000	ULM320	ULM320HDZ	ULM320ZL	ULM620	ULM620HDZ	ULM620ZL
	2,0	200	300	36000	ULH322	ULH322HDZ	ULH322ZL	ULH622	ULH622HDZ	ULH622ZL
		300	300	54000	ULH323	ULH323HDZ	ULH323ZL	ULH623	ULH623HDZ	ULH623ZL
		400	300	72000	ULH324	ULH324HDZ	ULH324ZL	ULH624	ULH624HDZ	ULH624ZL
		500	300	90000	ULH325	ULH325HDZ	ULH325ZL	ULH625	ULH625HDZ	ULH625ZL
		600	300	108000	ULH326	ULH326HDZ	ULH326ZL	ULH626	ULH626HDZ	ULH626ZL
		700	200	126000	ULH327	ULH327HDZ	ULH327ZL	ULH627	ULH627HDZ	ULH627ZL
		800	200	144000	ULH328	ULH328HDZ	ULH328ZL	ULH628	ULH628HDZ	ULH628ZL
		900	200	162000	ULH329	ULH329HDZ	ULH329ZL	ULH629	ULH629HDZ	ULH629ZL
		1000	200	180000	ULH320	ULH320HDZ	ULH320ZL	ULH620	ULH620HDZ	ULH620ZL

Load diagram

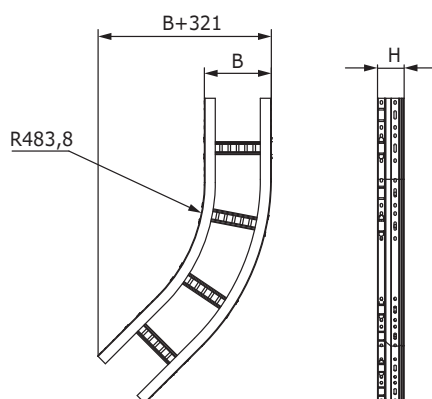


**Safe working load test conditions:**

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.

## Cable ladder system accessories

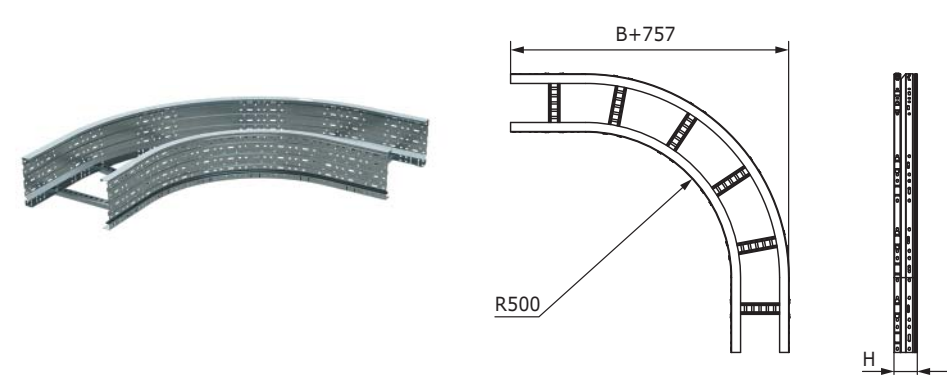
### Horizontal ladder bend 45°


**Purpose:**

- turn cable route by 45 degrees on the horizontal plane;
- available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	ULC682	ULC682HDZ	ULC682ZL
	300	ULC683	ULC683HDZ	ULC683ZL
	400	ULC684	ULC684HDZ	ULC684ZL
	500	ULC685	ULC685HDZ	ULC685ZL
	600	ULC686	ULC686HDZ	ULC686ZL
	700	ULC687	ULC687HDZ	ULC687ZL
	800	ULC688	ULC688HDZ	ULC688ZL
	900	ULC689	ULC689HDZ	ULC689ZL
	1000	ULC680	ULC680HDZ	ULC680ZL
100	200	ULC612	ULC612HDZ	ULC612ZL
	300	ULC613	ULC613HDZ	ULC613ZL
	400	ULC614	ULC614HDZ	ULC614ZL
	500	ULC615	ULC615HDZ	ULC615ZL
	600	ULC616	ULC616HDZ	ULC616ZL
	700	ULC617	ULC617HDZ	ULC617ZL
	800	ULC618	ULC618HDZ	ULC618ZL
	900	ULC619	ULC619HDZ	ULC619ZL
	1000	ULC610	ULC610HDZ	ULC610ZL
150	200	ULC652	ULC652HDZ	ULC652ZL
	300	ULC653	ULC653HDZ	ULC653ZL
	400	ULC654	ULC654HDZ	ULC654ZL
	500	ULC655	ULC655HDZ	ULC655ZL
	600	ULC656	ULC656HDZ	ULC656ZL
	700	ULC657	ULC657HDZ	ULC657ZL
	800	ULC658	ULC658HDZ	ULC658ZL
	900	ULC659	ULC659HDZ	ULC659ZL
	1000	ULC650	ULC650HDZ	ULC650ZL
200	200	ULC622	ULC622HDZ	ULC622ZL
	300	ULC623	ULC623HDZ	ULC623ZL
	400	ULC624	ULC624HDZ	ULC624ZL
	500	ULC625	ULC625HDZ	ULC625ZL
	600	ULC626	ULC626HDZ	ULC626ZL
	700	ULC627	ULC627HDZ	ULC627ZL
	800	ULC628	ULC628HDZ	ULC628ZL
	900	ULC629	ULC629HDZ	ULC629ZL
	1000	ULC620	ULC620HDZ	ULC620ZL

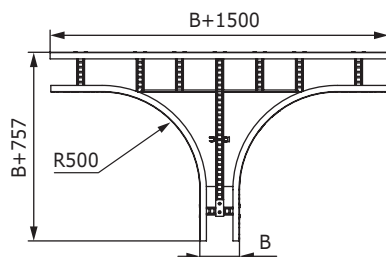
Horizontal ladder bend 90°



- Purpose:**
- turn cable route by 45 degrees on the horizontal plane;
  - available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	ULD682	ULD682HDZ	ULD682ZL
	300	ULD683	ULD683HDZ	ULD683ZL
	400	ULD684	ULD684HDZ	ULD684ZL
	500	ULD685	ULD685HDZ	ULD685ZL
	600	ULD686	ULD686HDZ	ULD686ZL
	700	ULD687	ULD687HDZ	ULD687ZL
	800	ULD688	ULD688HDZ	ULD688ZL
	900	ULD689	ULD689HDZ	ULD689ZL
	1000	ULD680	ULD680HDZ	ULD680ZL
100	200	ULD612	ULD612HDZ	ULD612ZL
	300	ULD613	ULD613HDZ	ULD613ZL
	400	ULD614	ULD614HDZ	ULD614ZL
	500	ULD615	ULD615HDZ	ULD615ZL
	600	ULD616	ULD616HDZ	ULD616ZL
	700	ULD617	ULD617HDZ	ULD617ZL
	800	ULD618	ULD618HDZ	ULD618ZL
	900	ULD619	ULD619HDZ	ULD619ZL
	1000	ULD610	ULD610HDZ	ULD610ZL
150	200	ULD652	ULD652HDZ	ULD652ZL
	300	ULD653	ULD653HDZ	ULD653ZL
	400	ULD654	ULD654HDZ	ULD654ZL
	500	ULD655	ULD655HDZ	ULD655ZL
	600	ULD656	ULD656HDZ	ULD656ZL
	700	ULD657	ULD657HDZ	ULD657ZL
	800	ULD658	ULD658HDZ	ULD658ZL
	900	ULD659	ULD659HDZ	ULD659ZL
	1000	ULD650	ULD650HDZ	ULD650ZL
200	200	ULD622	ULD622HDZ	ULD622ZL
	300	ULD623	ULD623HDZ	ULD623ZL
	400	ULD624	ULD624HDZ	ULD624ZL
	500	ULD625	ULD625HDZ	ULD625ZL
	600	ULD626	ULD626HDZ	ULD626ZL
	700	ULD627	ULD627HDZ	ULD627ZL
	800	ULD628	ULD628HDZ	ULD628ZL
	900	ULD629	ULD629HDZ	ULD629ZL
	1000	ULD620	ULD620HDZ	ULD620ZL

## Ladder T-branch

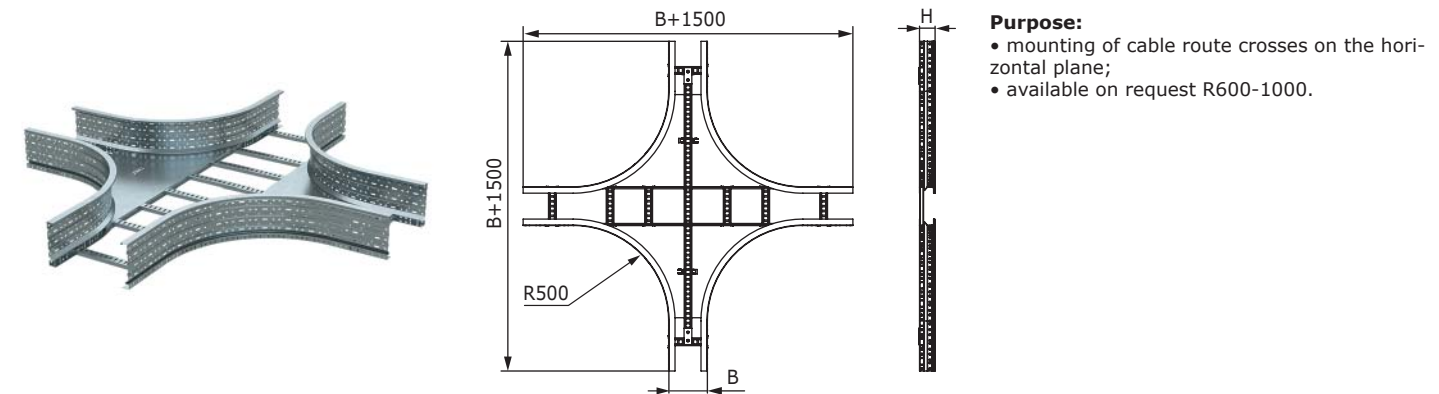


### Purpose:

- mounting of cable route branch on horizontal planes;
- available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	ULT682	ULT682HDZ	ULT682ZL
	300	ULT683	ULT683HDZ	ULT683ZL
	400	ULT684	ULT684HDZ	ULT684ZL
	500	ULT685	ULT685HDZ	ULT685ZL
	600	ULT686	ULT686HDZ	ULT686ZL
	700	ULT687	ULT687HDZ	ULT687ZL
	800	ULT688	ULT688HDZ	ULT688ZL
	900	ULT689	ULT689HDZ	ULT689ZL
	1000	ULT680	ULT680HDZ	ULT680ZL
100	200	ULT612	ULT612HDZ	ULT612ZL
	300	ULT613	ULT613HDZ	ULT613ZL
	400	ULT614	ULT614HDZ	ULT614ZL
	500	ULT615	ULT615HDZ	ULT615ZL
	600	ULT616	ULT616HDZ	ULT616ZL
	700	ULT617	ULT617HDZ	ULT617ZL
	800	ULT618	ULT618HDZ	ULT618ZL
	900	ULT619	ULT619HDZ	ULT619ZL
	1000	ULT610	ULT610HDZ	ULT610ZL
150	200	ULT652	ULT652HDZ	ULT652ZL
	300	ULT653	ULT653HDZ	ULT653ZL
	400	ULT654	ULT654HDZ	ULT654ZL
	500	ULT655	ULT655HDZ	ULT655ZL
	600	ULT656	ULT656HDZ	ULT656ZL
	700	ULT657	ULT657HDZ	ULT657ZL
	800	ULT658	ULT658HDZ	ULT658ZL
	900	ULT659	ULT659HDZ	ULT659ZL
	1000	ULT650	ULT650HDZ	ULT650ZL
200	200	ULT622	ULT622HDZ	ULT622ZL
	300	ULT623	ULT623HDZ	ULT623ZL
	400	ULT624	ULT624HDZ	ULT624ZL
	500	ULT625	ULT625HDZ	ULT625ZL
	600	ULT626	ULT626HDZ	ULT626ZL
	700	ULT627	ULT627HDZ	ULT627ZL
	800	ULT628	ULT628HDZ	ULT628ZL
	900	ULT629	ULT629HDZ	ULT629ZL
	1000	ULT620	ULT620HDZ	ULT620ZL

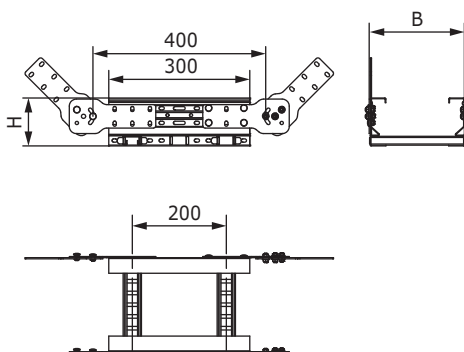
Cross-over



Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	ULX682	ULX682HDZ	ULX682ZL
	300	ULX683	ULX683HDZ	ULX683ZL
	400	ULX684	ULX684HDZ	ULX684ZL
	500	ULX685	ULX685HDZ	ULX685ZL
	600	ULX686	ULX686HDZ	ULX686ZL
	700	ULX687	ULX687HDZ	ULX687ZL
	800	ULX688	ULX688HDZ	ULX688ZL
	900	ULX689	ULX689HDZ	ULX689ZL
	1000	ULX680	ULX680HDZ	ULX680ZL
100	200	ULX612	ULX612HDZ	ULX612ZL
	300	ULX613	ULX613HDZ	ULX613ZL
	400	ULX614	ULX614HDZ	ULX614ZL
	500	ULX615	ULX615HDZ	ULX615ZL
	600	ULX616	ULX616HDZ	ULX616ZL
	700	ULX617	ULX617HDZ	ULX617ZL
	800	ULX618	ULX618HDZ	ULX618ZL
	900	ULX619	ULX619HDZ	ULX619ZL
	1000	ULX610	ULX610HDZ	ULX610ZL
150	200	ULX652	ULX652HDZ	ULX652ZL
	300	ULX653	ULX653HDZ	ULX653ZL
	400	ULX654	ULX654HDZ	ULX654ZL
	500	ULX655	ULX655HDZ	ULX655ZL
	600	ULX656	ULX656HDZ	ULX656ZL
	700	ULX657	ULX657HDZ	ULX657ZL
	800	ULX658	ULX658HDZ	ULX658ZL
	900	ULX659	ULX659HDZ	ULX659ZL
	1000	ULX650	ULX650HDZ	ULX650ZL
200	200	ULX622	ULX622HDZ	ULX622ZL
	300	ULX623	ULX623HDZ	ULX623ZL
	400	ULX624	ULX624HDZ	ULX624ZL
	500	ULX625	ULX625HDZ	ULX625ZL
	600	ULX626	ULX626HDZ	ULX626ZL
	700	ULX627	ULX627HDZ	ULX627ZL
	800	ULX628	ULX628HDZ	ULX628ZL
	900	ULX629	ULX629HDZ	ULX629ZL
	1000	ULX620	ULX620HDZ	ULX620ZL



## Vertical ladder joint



### Purpose:

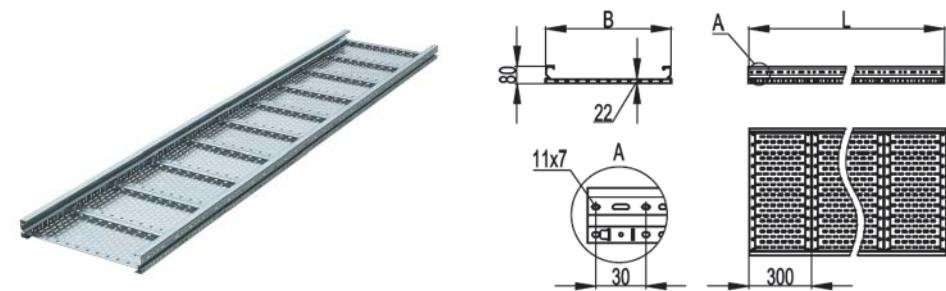
- mounting rises and down-drops of cable route;
- inclination of cable route under arbitrary angle.

### Distinctive features:

- for increase in turning radius the several sections are mounted in row.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	ULF082	ULF082HDZ	ULF082ZL
	300	ULF083	ULF083HDZ	ULF083ZL
	400	ULF084	ULF084HDZ	ULF084ZL
	500	ULF085	ULF085HDZ	ULF085ZL
	600	ULF086	ULF086HDZ	ULF086ZL
	700	ULF087	ULF087HDZ	ULF087ZL
	800	ULF088	ULF088HDZ	ULF088ZL
	900	ULF089	ULF089HDZ	ULF089ZL
	1000	ULF080	ULF080HDZ	ULF080ZL
100	200	ULF012	ULF012HDZ	ULF012ZL
	300	ULF013	ULF013HDZ	ULF013ZL
	400	ULF014	ULF014HDZ	ULF014ZL
	500	ULF015	ULF015HDZ	ULF015ZL
	600	ULF016	ULF016HDZ	ULF016ZL
	700	ULF017	ULF017HDZ	ULF017ZL
	800	ULF018	ULF018HDZ	ULF018ZL
	900	ULF019	ULF019HDZ	ULF019ZL
	1000	ULF010	ULF010HDZ	ULF010ZL
150	200	ULF052	ULF052HDZ	ULF052ZL
	300	ULF053	ULF053HDZ	ULF053ZL
	400	ULF054	ULF054HDZ	ULF054ZL
	500	ULF055	ULF055HDZ	ULF055ZL
	600	ULF056	ULF056HDZ	ULF056ZL
	700	ULF057	ULF057HDZ	ULF057ZL
	800	ULF058	ULF058HDZ	ULF058ZL
	900	ULF059	ULF059HDZ	ULF059ZL
	1000	ULF050	ULF050HDZ	ULF050ZL
200	200	ULF022	ULF022HDZ	ULF022ZL
	300	ULF023	ULF023HDZ	ULF023ZL
	400	ULF024	ULF024HDZ	ULF024ZL
	500	ULF025	ULF025HDZ	ULF025ZL
	600	ULF026	ULF026HDZ	ULF026ZL
	700	ULF027	ULF027HDZ	ULF027ZL
	800	ULF028	ULF028HDZ	ULF028ZL
	900	ULF029	ULF029HDZ	ULF029ZL
	1000	ULF020	ULF020HDZ	ULF020ZL

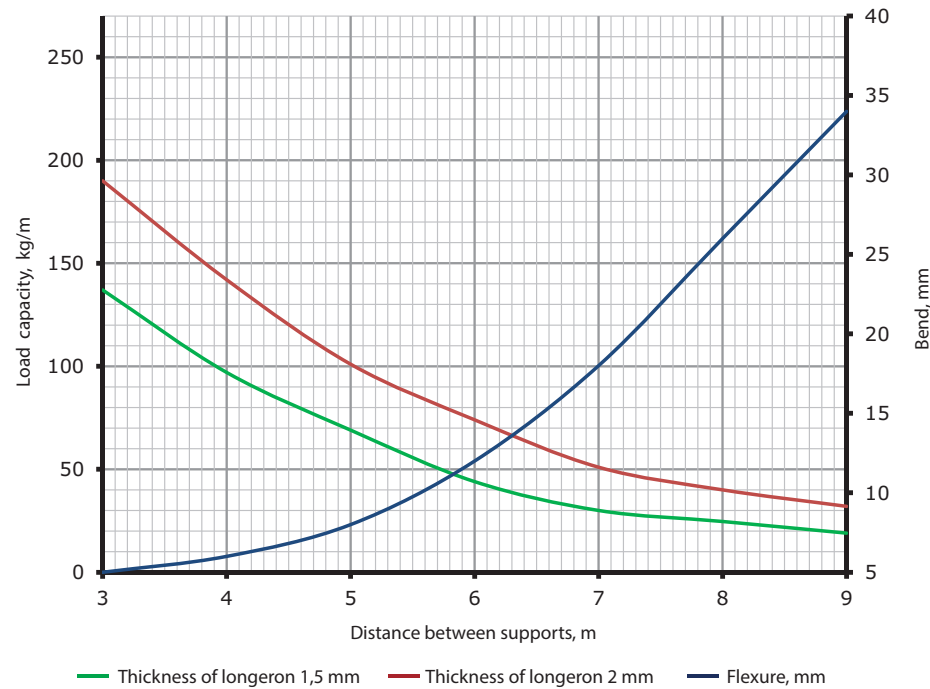
Perforated straight elements  
Straight elements 80 mm, perforated



**Purpose:**  
• cable installation on straight section.

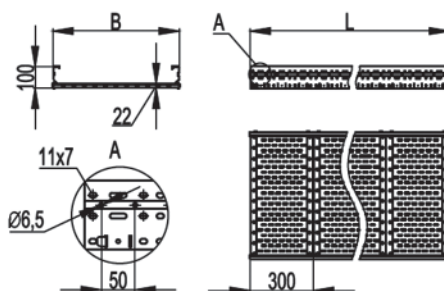
Height, mm	Longeron, mm	Width B, mm	TUA, mm <sup>2</sup>	Weight, ver. 1, kg/m	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
80	1,5	200	12000	4,72	USM382	USM382HDZ	USM382ZL	USM682	USM682HDZ	USM682ZL
		300	18000	5,62	USM383	USM383HDZ	USM383ZL	USM683	USM683HDZ	USM683ZL
		400	24000	6,52	USM384	USM384HDZ	USM384ZL	USM684	USM684HDZ	USM684ZL
		500	30000	7,42	USM385	USM385HDZ	USM385ZL	USM685	USM685HDZ	USM685ZL
		600	36000	8,32	USM386	USM386HDZ	USM386ZL	USM686	USM686HDZ	USM686ZL
		700	42000	9,22	USM387	USM387HDZ	USM387ZL	USM687	USM687HDZ	USM687ZL
		800	48000	10,12	USM388	USM388HDZ	USM388ZL	USM688	USM688HDZ	USM688ZL
		900	54000	11,02	USM389	USM389HDZ	USM389ZL	USM689	USM689HDZ	USM689ZL
		1000	60000	11,92	USM380	USM380HDZ	USM380ZL	USM680	USM680HDZ	USM680ZL
	2,0	200	12000	5,36	USH382	USH382HDZ	USH382ZL	USH682	USH682HDZ	USH682ZL
		300	18000	6,11	USH383	USH383HDZ	USH383ZL	USH683	USH683HDZ	USH683ZL
		400	24000	6,86	USH384	USH384HDZ	USH384ZL	USH684	USH684HDZ	USH684ZL
		500	30000	7,61	USH385	USH385HDZ	USH385ZL	USH685	USH685HDZ	USH685ZL
		600	36000	8,36	USH386	USH386HDZ	USH386ZL	USH686	USH686HDZ	USH686ZL
		700	42000	9,06	USH387	USH387HDZ	USH387ZL	USH687	USH687HDZ	USH687ZL
		800	48000	9,76	USH388	USH388HDZ	USH388ZL	USH688	USH688HDZ	USH688ZL
		900	54000	10,46	USH389	USH389HDZ	USH389ZL	USH689	USH689HDZ	USH689ZL
		1000	60000	12,16	USH380	USH380HDZ	USH380ZL	USH680	USH680HDZ	USH680ZL

Load diagram



**Safe working load test conditions:**  
• the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);  
• assurance factor not less than 1,7 of declared load.

## Straight elements 100 mm high, perforated

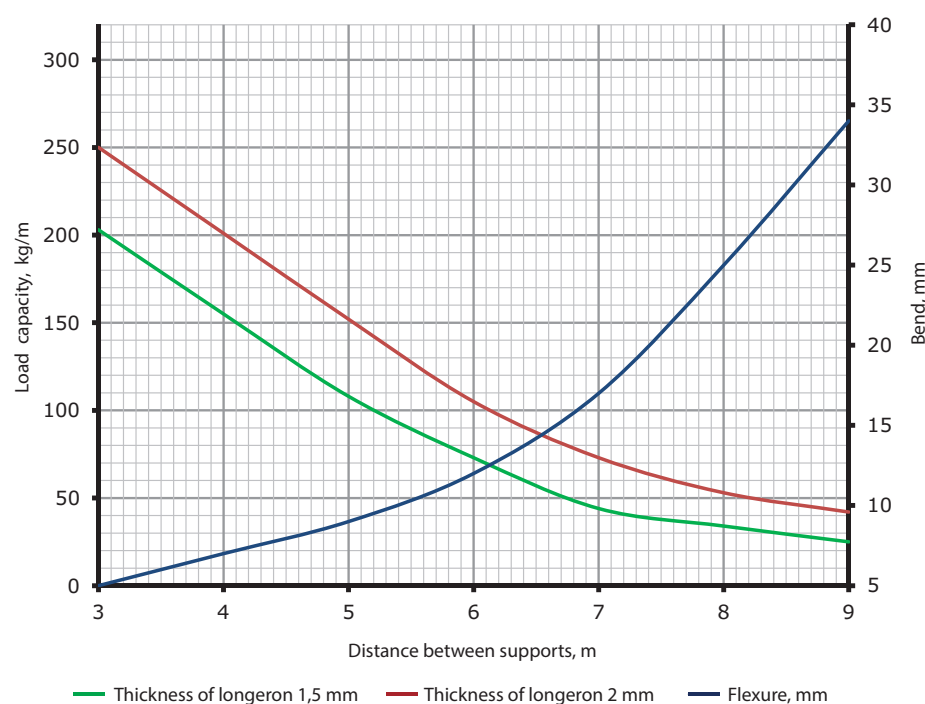


### Purpose:

- cable installation on straight section.

Height, mm	Longeron, mm	Width B, mm	TUA, mm <sup>2</sup>	Weight ver. 1, kg/m	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
100	1,5	200	16000	5,31	USM312	USM312HDZ	USM312ZL	USM612	USM612HDZ	USM612ZL
		300	24000	6,21	USM313	USM313HDZ	USM313ZL	USM613	USM613HDZ	USM613ZL
		400	32000	7,11	USM314	USM314HDZ	USM314ZL	USM614	USM614HDZ	USM614ZL
		500	40000	8,01	USM315	USM315HDZ	USM315ZL	USM615	USM615HDZ	USM615ZL
		600	48000	8,91	USM316	USM316HDZ	USM316ZL	USM616	USM616HDZ	USM616ZL
		700	56000	9,81	USM317	USM317HDZ	USM317ZL	USM617	USM617HDZ	USM617ZL
		800	64000	10,71	USM318	USM318HDZ	USM318ZL	USM618	USM618HDZ	USM618ZL
		900	72000	11,61	USM319	USM319HDZ	USM319ZL	USM619	USM619HDZ	USM619ZL
		1000	80000	12,51	USM310	USM310HDZ	USM310ZL	USM610	USM610HDZ	USM610ZL
	2,0	200	16000	6,15	USH312	USH312HDZ	USH312ZL	USH612	USH612HDZ	USH612ZL
		300	24000	6,90	USH313	USH313HDZ	USH313ZL	USH613	USH613HDZ	USH613ZL
		400	32000	7,65	USH314	USH314HDZ	USH314ZL	USH614	USH614HDZ	USH614ZL
		500	40000	8,40	USH315	USH315HDZ	USH315ZL	USH615	USH615HDZ	USH615ZL
		600	48000	9,15	USH316	USH316HDZ	USH316ZL	USH616	USH616HDZ	USH616ZL
		700	56000	10,00	USH317	USH317HDZ	USH317ZL	USH617	USH617HDZ	USH617ZL
		800	64000	10,85	USH318	USH318HDZ	USH318ZL	USH618	USH618HDZ	USH618ZL
		900	72000	11,55	USH319	USH319HDZ	USH319ZL	USH619	USH619HDZ	USH619ZL
		1000	80000	13,15	USH310	USH310HDZ	USH310ZL	USH610	USH610HDZ	USH610ZL

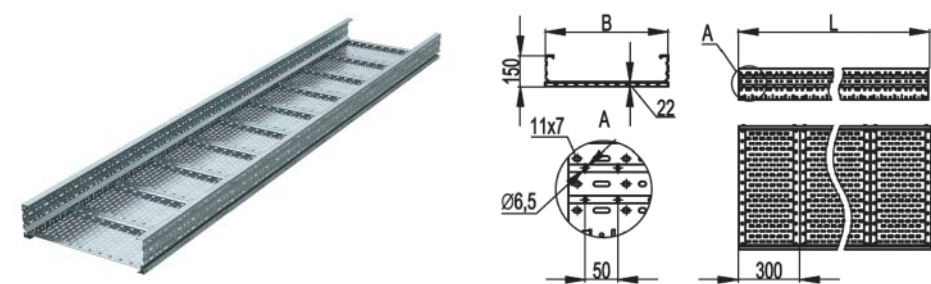
## Load diagram



### Safe working load test conditions:

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.

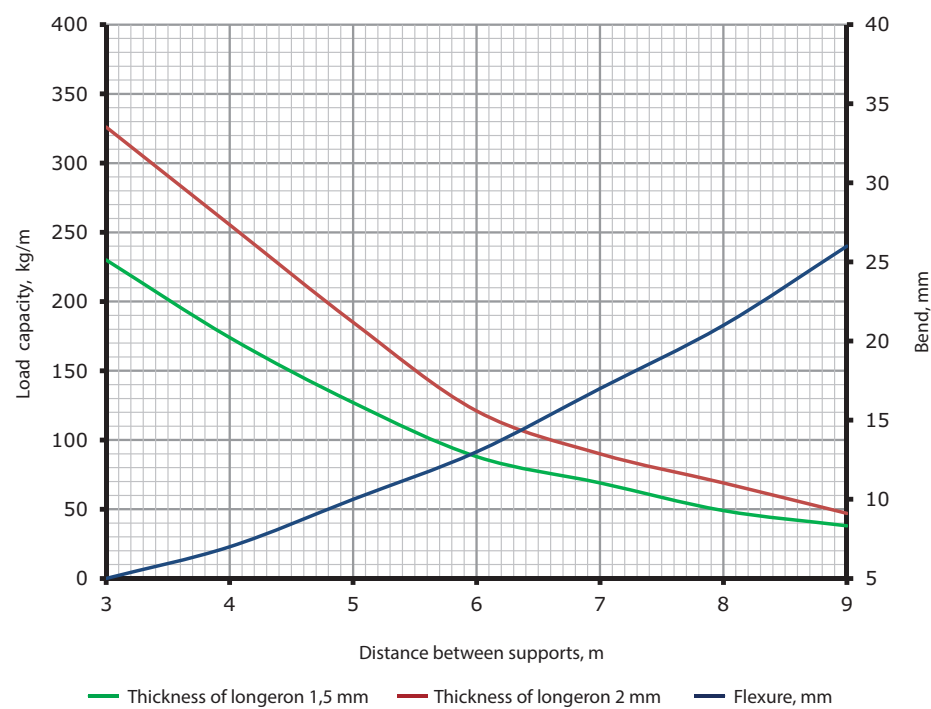
Straight elements 150 mm high, perforated



**Purpose:**  
• cable installation on straight section.

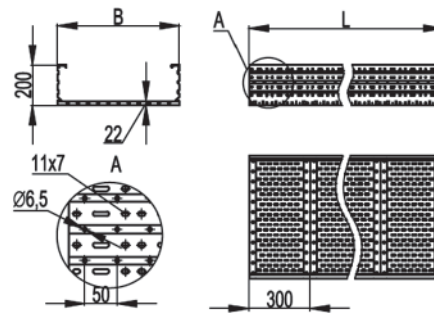
Height, mm	Longeron, mm	Width B, mm	Bottom plates width T, mm	TUA, mm <sup>2</sup>	Weight ver. 1, kg/m	Length L, mm					
						3000			6000		
						code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
150	1,5	200	300	26000	6,52	USM352	USM352HDZ	USM352ZL	USM652	USM652HDZ	USM652ZL
		300	300	39000	7,42	USM353	USM353HDZ	USM353ZL	USM653	USM653HDZ	USM653ZL
		400	300	52000	8,31	USM354	USM354HDZ	USM354ZL	USM654	USM654HDZ	USM654ZL
		500	300	65000	9,21	USM355	USM355HDZ	USM355ZL	USM655	USM655HDZ	USM655ZL
		600	300	78000	10,11	USM356	USM356HDZ	USM356ZL	USM656	USM656HDZ	USM656ZL
		700	200	91000	11,01	USM357	USM357HDZ	USM357ZL	USM657	USM657HDZ	USM657ZL
		800	200	104000	11,91	USM358	USM358HDZ	USM358ZL	USM658	USM658HDZ	USM658ZL
		900	200	117000	12,81	USM359	USM359HDZ	USM359ZL	USM659	USM659HDZ	USM659ZL
		1000	200	130000	13,71	USM350	USM350HDZ	USM350ZL	USM650	USM650HDZ	USM650ZL
	2,0	200	300	26000	7,75	USH352	USH352HDZ	USH352ZL	USH652	USH652HDZ	USH652ZL
		300	300	39000	8,50	USH353	USH353HDZ	USH353ZL	USH653	USH653HDZ	USH653ZL
		400	300	52000	9,25	USH354	USH354HDZ	USH354ZL	USH654	USH654HDZ	USH654ZL
		500	300	65000	10,00	USH355	USH355HDZ	USH355ZL	USH655	USH655HDZ	USH655ZL
		600	300	78000	10,75	USH356	USH356HDZ	USH356ZL	USH656	USH656HDZ	USH656ZL
		700	200	91000	11,50	USH357	USH357HDZ	USH357ZL	USH657	USH657HDZ	USH657ZL
		800	200	104000	12,25	USH358	USH358HDZ	USH358ZL	USH658	USH658HDZ	USH658ZL
		900	200	117000	13,00	USH359	USH359HDZ	USH359ZL	USH659	USH659HDZ	USH659ZL
		1000	200	130000	13,75	USH350	USH350HDZ	USH350ZL	USH650	USH650HDZ	USH650ZL

Load diagram



**Safe working load test conditions:**  
• the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);  
• assurance factor not less than 1,7 of declared load.

## Straight elements 200 mm high, perforated

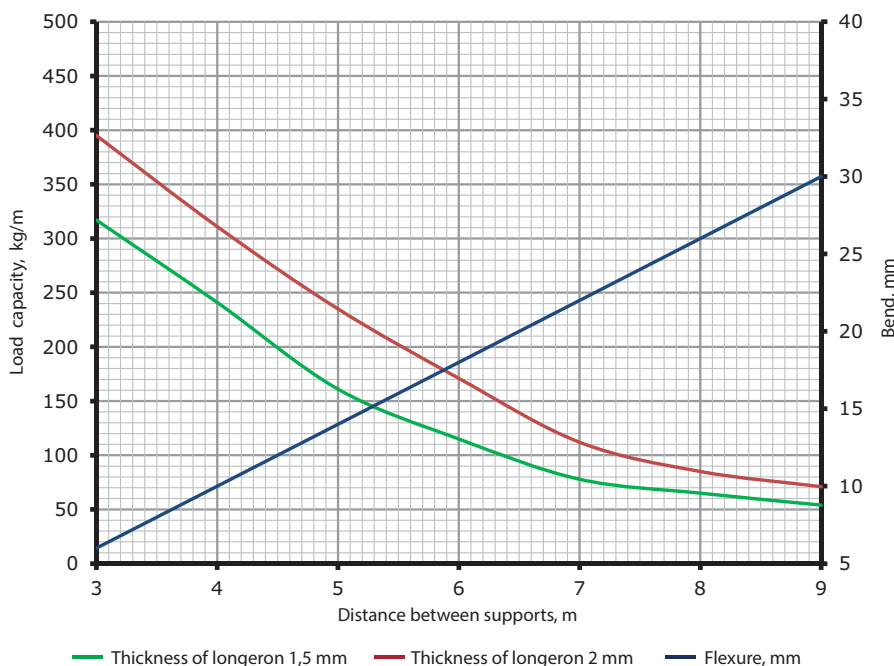


### Purpose:

- cable installation on straight section.

Height, mm	Longeron, mm	Width B, mm	Bottom plates width T, mm	TUA, mm <sup>2</sup>	Weight, ver. 1, kg/m	Length L, mm					
						3000			6000		
						code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
200	1,5	200	300	36000	7,72	USM322	USM322HDZ	USM322ZL	USM622	USM622HDZ	USM622ZL
		300	300	54000	8,62	USM323	USM323HDZ	USM323ZL	USM623	USM623HDZ	USM623ZL
		400	300	72000	9,52	USM324	USM324HDZ	USM324ZL	USM624	USM624HDZ	USM624ZL
		500	300	90000	10,41	USM325	USM325HDZ	USM325ZL	USM625	USM625HDZ	USM625ZL
		600	300	108000	11,31	USM326	USM326HDZ	USM326ZL	USM626	USM626HDZ	USM626ZL
		700	200	126000	12,21	USM327	USM327HDZ	USM327ZL	USM627	USM627HDZ	USM627ZL
		800	200	144000	13,11	USM328	USM328HDZ	USM328ZL	USM628	USM628HDZ	USM628ZL
		900	200	162000	14,01	USM329	USM329HDZ	USM329ZL	USM629	USM629HDZ	USM629ZL
		1000	200	180000	14,91	USM320	USM320HDZ	USM320ZL	USM620	USM620HDZ	USM620ZL
	2,0	200	300	36000	9,36	USH322	USH322HDZ	USH322ZL	USH622	USH622HDZ	USH622ZL
		300	300	54000	10,11	USH323	USH323HDZ	USH323ZL	USH623	USH623HDZ	USH623ZL
		400	300	72000	10,86	USH324	USH324HDZ	USH324ZL	USH624	USH624HDZ	USH624ZL
		500	300	90000	11,60	USH325	USH325HDZ	USH325ZL	USH625	USH625HDZ	USH625ZL
		600	300	108000	12,35	USH326	USH326HDZ	USH326ZL	USH626	USH626HDZ	USH626ZL
		700	200	126000	13,10	USH327	USH327HDZ	USH327ZL	USH627	USH627HDZ	USH627ZL
		800	200	144000	13,85	USH328	USH328HDZ	USH328ZL	USH628	USH628HDZ	USH628ZL
		900	200	162000	14,60	USH329	USH329HDZ	USH329ZL	USH629	USH629HDZ	USH629ZL
		1000	200	180000	15,35	USH320	USH320HDZ	USH320ZL	USH620	USH620HDZ	USH620ZL

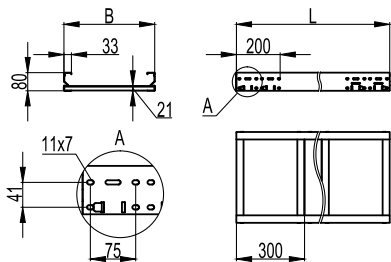
## Load diagram



### Safe working load test conditions:

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.

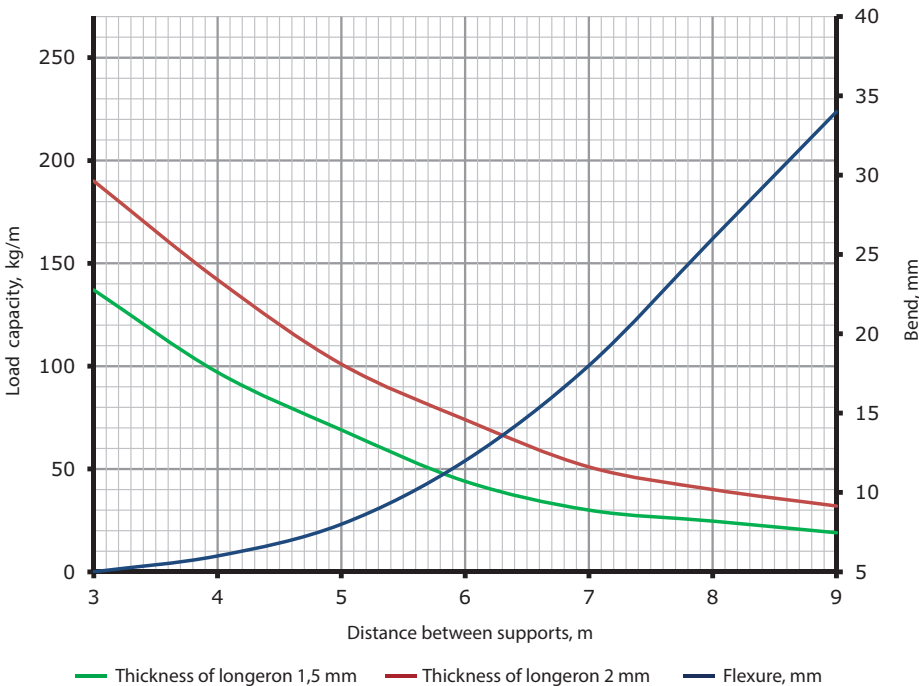
Straight sheet elements, non-perforated  
Straight elements 80 mm high, non-perforated



**Purpose:**  
• cable installation on straight section.

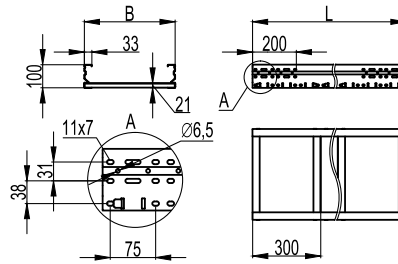
Height, mm	Longeron, mm	Width B, mm	TUA, mm <sup>2</sup>	Weight, ver. 1, kg/m	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
80	1,5	200	12000	9,44	UNM382	UNM382HDZ	UNM382ZL	UNM682	UNM682HDZ	UNM682ZL
		300	18000	11,24	UNM383	UNM383HDZ	UNM383ZL	UNM683	UNM683HDZ	UNM683ZL
		400	24000	13,04	UNM384	UNM384HDZ	UNM384ZL	UNM684	UNM684HDZ	UNM684ZL
		500	30000	14,84	UNM385	UNM385HDZ	UNM385ZL	UNM685	UNM685HDZ	UNM685ZL
		600	36000	16,64	UNM386	UNM386HDZ	UNM386ZL	UNM686	UNM686HDZ	UNM686ZL
		700	42000	18,44	UNM387	UNM387HDZ	UNM387ZL	UNM687	UNM687HDZ	UNM687ZL
		800	48000	20,24	UNM388	UNM388HDZ	UNM388ZL	UNM688	UNM688HDZ	UNM688ZL
		900	54000	22,04	UNM389	UNM389HDZ	UNM389ZL	UNM689	UNM689HDZ	UNM689ZL
		1000	60000	23,84	UNM380	UNM380HDZ	UNM380ZL	UNM680	UNM680HDZ	UNM680ZL
	2,0	200	12000	10,72	UNH382	UNH382HDZ	UNH382ZL	UNH682	UNH682HDZ	UNH682ZL
		300	18000	12,22	UNH383	UNH383HDZ	UNH383ZL	UNH683	UNH683HDZ	UNH683ZL
		400	24000	13,72	UNH384	UNH384HDZ	UNH384ZL	UNH684	UNH684HDZ	UNH684ZL
		500	30000	15,22	UNH385	UNH385HDZ	UNH385ZL	UNH685	UNH685HDZ	UNH685ZL
		600	36000	16,72	UNH386	UNH386HDZ	UNH386ZL	UNH686	UNH686HDZ	UNH686ZL
		700	42000	18,12	UNH387	UNH387HDZ	UNH387ZL	UNH687	UNH687HDZ	UNH687ZL
		800	48000	19,52	UNH388	UNH388HDZ	UNH388ZL	UNH688	UNH688HDZ	UNH688ZL
		900	54000	20,92	UNH389	UNH389HDZ	UNH389ZL	UNH689	UNH689HDZ	UNH689ZL
		1000	60000	24,32	UNH380	UNH380HDZ	UNH380ZL	UNH680	UNH680HDZ	UNH680ZL

Load diagram



**Safe working load test conditions:**  
• the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);  
• assurance factor not less than 1,7 of declared load.

## Straight elements 100 mm high, non-perforated

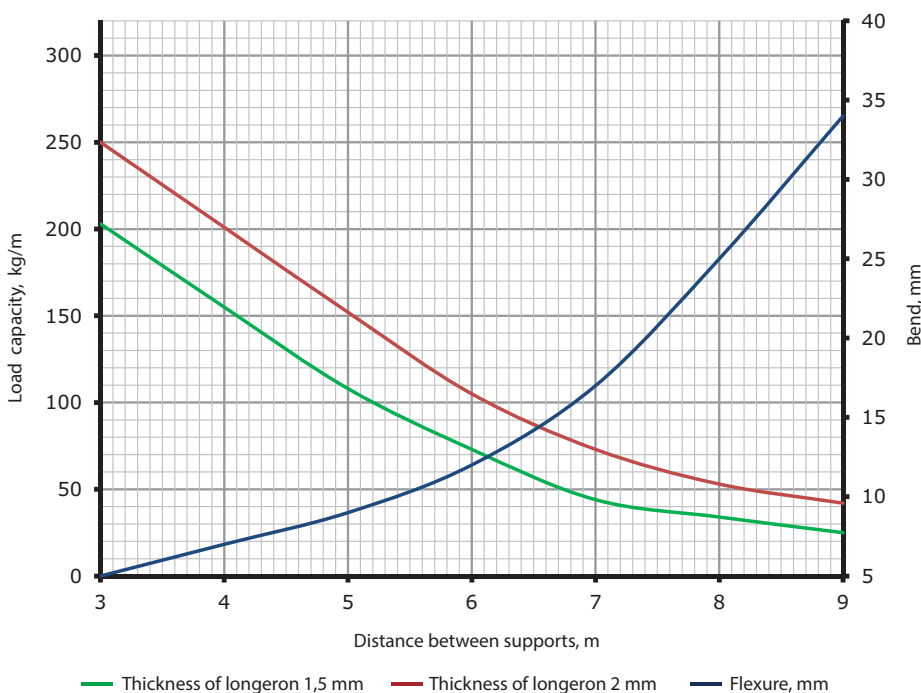


### Purpose:

- cable installation on straight section.

Height, mm	Longeron, mm	Width B, mm	TUA, mm <sup>2</sup>	Weight, ver. 1, kg/m	Length L, mm					
					3000			6000		
					code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
100	1,5	200	16000	10,62	UNM312	UNM312HDZ	UNM312ZL	UNM612	UNM612HDZ	UNM612ZL
		300	24000	12,42	UNM313	UNM313HDZ	UNM313ZL	UNM613	UNM613HDZ	UNM613ZL
		400	32000	14,22	UNM314	UNM314HDZ	UNM314ZL	UNM614	UNM614HDZ	UNM614ZL
		500	40000	16,02	UNM315	UNM315HDZ	UNM315ZL	UNM615	UNM615HDZ	UNM615ZL
		600	48000	17,82	UNM316	UNM316HDZ	UNM316ZL	UNM616	UNM616HDZ	UNM616ZL
		700	56000	19,62	UNM317	UNM317HDZ	UNM317ZL	UNM617	UNM617HDZ	UNM617ZL
		800	64000	21,42	UNM318	UNM318HDZ	UNM318ZL	UNM618	UNM618HDZ	UNM618ZL
		900	72000	23,22	UNM319	UNM319HDZ	UNM319ZL	UNM619	UNM619HDZ	UNM619ZL
		1000	80000	25,02	UNM310	UNM310HDZ	UNM310ZL	UNM610	UNM610HDZ	UNM610ZL
	2,0	200	16000	12,30	UNH312	UNH312HDZ	UNH312ZL	UNH612	UNH612HDZ	UNH612ZL
		300	24000	13,80	UNH313	UNH313HDZ	UNH313ZL	UNH613	UNH613HDZ	UNH613ZL
		400	32000	15,30	UNH314	UNH314HDZ	UNH314ZL	UNH614	UNH614HDZ	UNH614ZL
		500	40000	16,80	UNH315	UNH315HDZ	UNH315ZL	UNH615	UNH615HDZ	UNH615ZL
		600	48000	18,30	UNH316	UNH316HDZ	UNH316ZL	UNH616	UNH616HDZ	UNH616ZL
		700	56000	20,00	UNH317	UNH317HDZ	UNH317ZL	UNH617	UNH617HDZ	UNH617ZL
		800	64000	21,70	UNH318	UNH318HDZ	UNH318ZL	UNH618	UNH618HDZ	UNH618ZL
		900	72000	23,10	UNH319	UNH319HDZ	UNH319ZL	UNH619	UNH619HDZ	UNH619ZL
		1000	80000	26,30	UNH310	UNH310HDZ	UNH310ZL	UNH610	UNH610HDZ	UNH610ZL

## Load diagram

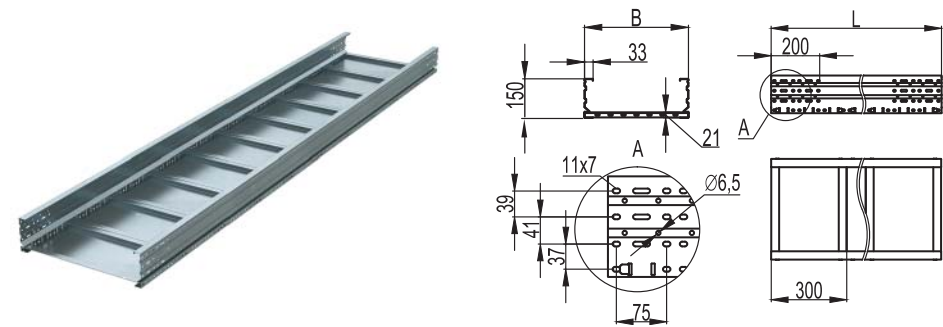


### Safe working load test conditions:

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.



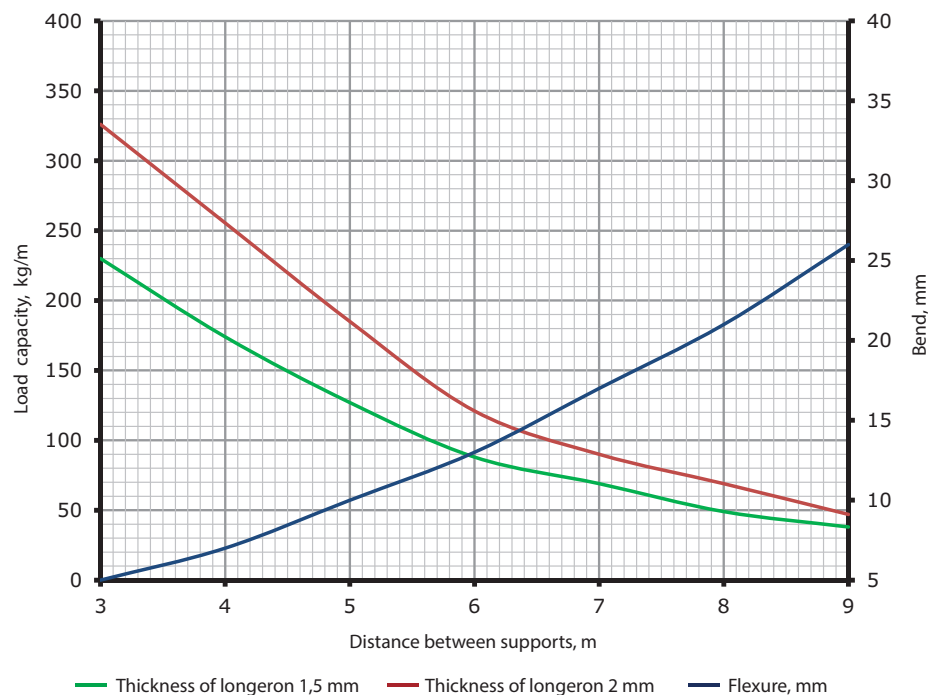
Straight elements 150 mm high, non-perforated



**Purpose:**  
• cable installation on straight section.

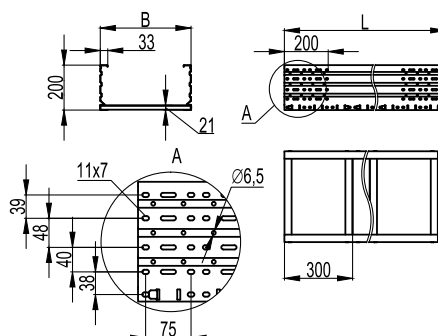
Height, mm	Longeron, mm	Width B, mm	Bottom plates width T, mm	TUA, mm²	Weight, ver. 1, kg/m	Length L, mm					
						3000			6000		
						code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
150	1,5	200	300	26000	13,04	UNM352	UNM352HDZ	UNM352ZL	UNM652	UNM652HDZ	UNM652ZL
		300	300	39000	14,84	UNM353	UNM353HDZ	UNM353ZL	UNM653	UNM653HDZ	UNM653ZL
		400	300	52000	16,62	UNM354	UNM354HDZ	UNM354ZL	UNM654	UNM654HDZ	UNM654ZL
		500	300	65000	18,42	UNM355	UNM355HDZ	UNM355ZL	UNM655	UNM655HDZ	UNM655ZL
		600	300	78000	20,22	UNM356	UNM356HDZ	UNM356ZL	UNM656	UNM656HDZ	UNM656ZL
		700	200	91000	22,02	UNM357	UNM357HDZ	UNM357ZL	UNM657	UNM657HDZ	UNM657ZL
		800	200	104000	23,82	UNM358	UNM358HDZ	UNM358ZL	UNM658	UNM658HDZ	UNM658ZL
		900	200	117000	25,62	UNM359	UNM359HDZ	UNM359ZL	UNM659	UNM659HDZ	UNM659ZL
		1000	200	130000	27,42	UNM350	UNM350HDZ	UNM350ZL	UNM650	UNM650HDZ	UNM650ZL
	2,0	200	300	26000	15,50	UNH352	UNH352HDZ	UNH352ZL	UNH652	UNH652HDZ	UNH652ZL
		300	300	39000	17,00	UNH353	UNH353HDZ	UNH353ZL	UNH653	UNH653HDZ	UNH653ZL
		400	300	52000	18,50	UNH354	UNH354HDZ	UNH354ZL	UNH654	UNH654HDZ	UNH654ZL
		500	300	65000	20,00	UNH355	UNH355HDZ	UNH355ZL	UNH655	UNH655HDZ	UNH655ZL
		600	300	78000	21,50	UNH356	UNH356HDZ	UNH356ZL	UNH656	UNH656HDZ	UNH656ZL
		700	200	91000	23,00	UNH357	UNH357HDZ	UNH357ZL	UNH657	UNH657HDZ	UNH657ZL
		800	200	104000	24,50	UNH358	UNH358HDZ	UNH358ZL	UNH658	UNH658HDZ	UNH658ZL
		900	200	117000	26,00	UNH359	UNH359HDZ	UNH359ZL	UNH659	UNH659HDZ	UNH659ZL
		1000	200	130000	27,50	UNH350	UNH350HDZ	UNH350ZL	UNH650	UNH650HDZ	UNH650ZL

Load diagram



**Safe working load test conditions:**  
• the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);  
• assurance factor not less than 1,7 of declared load.

## Straight elements 200 mm high, non-perforated

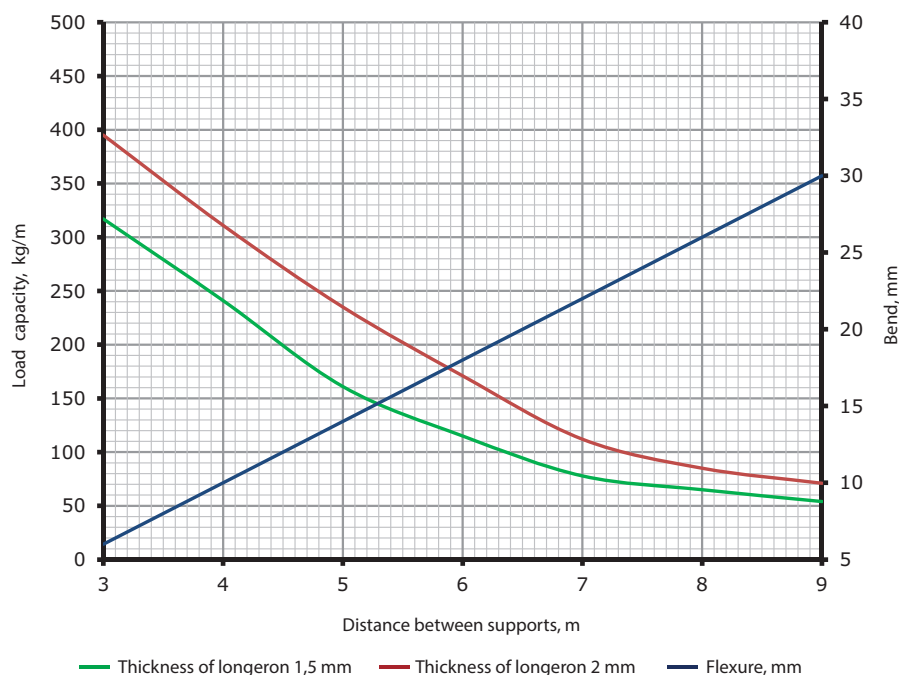


### Purpose:

- cable installation on straight section.

Height, mm	Longeron, mm	Width B, mm	Bottom plates width T, mm	TUA, mm <sup>2</sup>	Weight, ver. 1, kg/m	Length L, mm					
						3000			6000		
						code, ver. 1	code, ver. 2	code, ver. 4	code, ver. 1	code, ver. 2	code, ver. 4
200	1,5	200	300	36000	15,44	UNM322	UNM322HDZ	UNM322ZL	UNM622	UNM622HDZ	UNM622ZL
		300	300	54000	17,24	UNM323	UNM323HDZ	UNM323ZL	UNM623	UNM623HDZ	UNM623ZL
		400	300	72000	19,04	UNM324	UNM324HDZ	UNM324ZL	UNM624	UNM624HDZ	UNM624ZL
		500	300	90000	20,82	UNM325	UNM325HDZ	UNM325ZL	UNM625	UNM625HDZ	UNM625ZL
		600	300	108000	22,62	UNM326	UNM326HDZ	UNM326ZL	UNM626	UNM626HDZ	UNM626ZL
		700	200	126000	24,42	UNM327	UNM327HDZ	UNM327ZL	UNM627	UNM627HDZ	UNM627ZL
		800	200	144000	26,22	UNM328	UNM328HDZ	UNM328ZL	UNM628	UNM628HDZ	UNM628ZL
		900	200	162000	28,02	UNM329	UNM329HDZ	UNM329ZL	UNM629	UNM629HDZ	UNM629ZL
		1000	200	180000	29,82	UNM320	UNM320HDZ	UNM320ZL	UNM620	UNM620HDZ	UNM620ZL
	2,0	200	300	36000	18,72	UNH322	UNH322HDZ	UNH322ZL	UNH622	UNH622HDZ	UNH622ZL
		300	300	54000	20,22	UNH323	UNH323HDZ	UNH323ZL	UNH623	UNH623HDZ	UNH623ZL
		400	300	72000	21,72	UNH324	UNH324HDZ	UNH324ZL	UNH624	UNH624HDZ	UNH624ZL
		500	300	90000	23,20	UNH325	UNH325HDZ	UNH325ZL	UNH625	UNH625HDZ	UNH625ZL
		600	300	108000	24,70	UNH326	UNH326HDZ	UNH326ZL	UNH626	UNH626HDZ	UNH626ZL
		700	200	126000	26,20	UNH327	UNH327HDZ	UNH327ZL	UNH627	UNH627HDZ	UNH627ZL
		800	200	144000	27,70	UNH328	UNH328HDZ	UNH328ZL	UNH628	UNH628HDZ	UNH628ZL
		900	200	162000	29,20	UNH329	UNH329HDZ	UNH329ZL	UNH629	UNH629HDZ	UNH629ZL
		1000	200	180000	30,70	UNH320	UNH320HDZ	UNH320ZL	UNH620	UNH620HDZ	UNH620ZL

## Load diagram

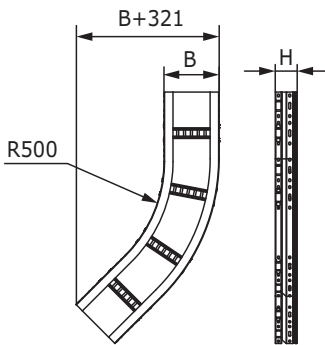


### Safe working load test conditions:

- the test according to the benchmark P 52868 item 10.3.3 (analogue of the IEC 61537 item 10.3.3);
- assurance factor not less than 1,7 of declared load.

Cable tray system accessories

Horizontal cable tray bend 45°

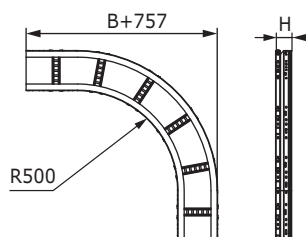


**Purpose:**

- turn cable route by 45 degrees on horizontal plane;
- available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	USC682	USC682HDZ	USC682ZL
	300	USC683	USC683HDZ	USC683ZL
	400	USC684	USC684HDZ	USC684ZL
	500	USC685	USC685HDZ	USC685ZL
	600	USC686	USC686HDZ	USC686ZL
	700	USC687	USC687HDZ	USC687ZL
	800	USC688	USC688HDZ	USC688ZL
	900	USC689	USC689HDZ	USC689ZL
100	1000	USC680	USC680HDZ	USC680ZL
	200	USC612	USC612HDZ	USC612ZL
	300	USC613	USC613HDZ	USC613ZL
	400	USC614	USC614HDZ	USC614ZL
	500	USC615	USC615HDZ	USC615ZL
	600	USC616	USC616HDZ	USC616ZL
	700	USC617	USC617HDZ	USC617ZL
	800	USC618	USC618HDZ	USC618ZL
150	900	USC619	USC619HDZ	USC619ZL
	1000	USC610	USC610HDZ	USC610ZL
	200	USC652	USC652HDZ	USC652ZL
	300	USC653	USC653HDZ	USC653ZL
	400	USC654	USC654HDZ	USC654ZL
	500	USC655	USC655HDZ	USC655ZL
	600	USC656	USC656HDZ	USC656ZL
	700	USC657	USC657HDZ	USC657ZL
200	800	USC658	USC658HDZ	USC658ZL
	900	USC659	USC659HDZ	USC659ZL
	1000	USC650	USC650HDZ	USC650ZL
	200	USC622	USC622HDZ	USC622ZL
	300	USC623	USC623HDZ	USC623ZL
	400	USC624	USC624HDZ	USC624ZL
	500	USC625	USC625HDZ	USC625ZL
	600	USC626	USC626HDZ	USC626ZL
	700	USC627	USC627HDZ	USC627ZL
	800	USC628	USC628HDZ	USC628ZL
	900	USC629	USC629HDZ	USC629ZL
	1000	USC620	USC620HDZ	USC620ZL

## Horizontal cable tray bend 90°

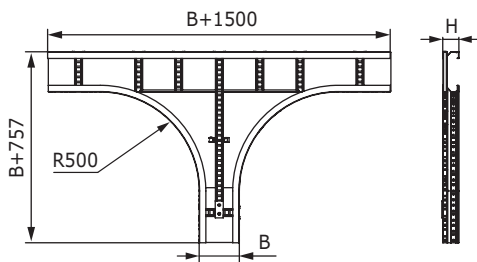


### Purpose:

- turn cable route by 90 degrees on horizontal plane;
- available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	USD682	USD682HDZ	USD682ZL
	300	USD683	USD683HDZ	USD683ZL
	400	USD684	USD684HDZ	USD684ZL
	500	USD685	USD685HDZ	USD685ZL
	600	USD686	USD686HDZ	USD686ZL
	700	USD687	USD687HDZ	USD687ZL
	800	USD688	USD688HDZ	USD688ZL
	900	USD689	USD689HDZ	USD689ZL
100	1000	USD680	USD680HDZ	USD680ZL
	200	USD612	USD612HDZ	USD612ZL
	300	USD613	USD613HDZ	USD613ZL
	400	USD614	USD614HDZ	USD614ZL
	500	USD615	USD615HDZ	USD615ZL
	600	USD616	USD616HDZ	USD616ZL
	700	USD617	USD617HDZ	USD617ZL
	800	USD618	USD618HDZ	USD618ZL
150	900	USD619	USD619HDZ	USD619ZL
	1000	USD610	USD610HDZ	USD610ZL
	200	USD652	USD652HDZ	USD652ZL
	300	USD653	USD653HDZ	USD653ZL
	400	USD654	USD654HDZ	USD654ZL
	500	USD655	USD655HDZ	USD655ZL
	600	USD656	USD656HDZ	USD656ZL
	700	USD657	USD657HDZ	USD657ZL
200	800	USD658	USD658HDZ	USD658ZL
	900	USD659	USD659HDZ	USD659ZL
	1000	USD650	USD650HDZ	USD650ZL
	200	USD622	USD622HDZ	USD622ZL
	300	USD623	USD623HDZ	USD623ZL
	400	USD624	USD624HDZ	USD624ZL
	500	USD625	USD625HDZ	USD625ZL
	600	USD626	USD626HDZ	USD626ZL
	700	USD627	USD627HDZ	USD627ZL
	800	USD628	USD628HDZ	USD628ZL
	900	USD629	USD629HDZ	USD629ZL
	1000	USD620	USD620HDZ	USD620ZL

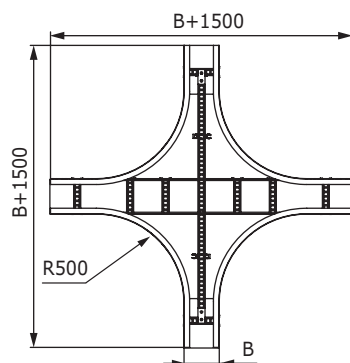
Cable tray T-branch



- Purpose:**
- mounting of cable route branch on horizontal planes;
  - available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	UST682	UST682HDZ	UST682ZL
	300	UST683	UST683HDZ	UST683ZL
	400	UST684	UST684HDZ	UST684ZL
	500	UST685	UST685HDZ	UST685ZL
	600	UST686	UST686HDZ	UST686ZL
	700	UST687	UST687HDZ	UST687ZL
	800	UST688	UST688HDZ	UST688ZL
	900	UST689	UST689HDZ	UST689ZL
100	1000	UST680	UST680HDZ	UST680ZL
	200	UST612	UST612HDZ	UST612ZL
	300	UST613	UST613HDZ	UST613ZL
	400	UST614	UST614HDZ	UST614ZL
	500	UST615	UST615HDZ	UST615ZL
	600	UST616	UST616HDZ	UST616ZL
	700	UST617	UST617HDZ	UST617ZL
	800	UST618	UST618HDZ	UST618ZL
150	900	UST619	UST619HDZ	UST619ZL
	1000	UST610	UST610HDZ	UST610ZL
	200	UST652	UST652HDZ	UST652ZL
	300	UST653	UST653HDZ	UST653ZL
	400	UST654	UST654HDZ	UST654ZL
	500	UST655	UST655HDZ	UST655ZL
	600	UST656	UST656HDZ	UST656ZL
	700	UST657	UST657HDZ	UST657ZL
200	800	UST658	UST658HDZ	UST658ZL
	900	UST659	UST659HDZ	UST659ZL
	1000	UST650	UST650HDZ	UST650ZL
	200	UST622	UST622HDZ	UST622ZL
	300	UST623	UST623HDZ	UST623ZL
	400	UST624	UST624HDZ	UST624ZL
	500	UST625	UST625HDZ	UST625ZL
	600	UST626	UST626HDZ	UST626ZL
	700	UST627	UST627HDZ	UST627ZL
	800	UST628	UST628HDZ	UST628ZL
	900	UST629	UST629HDZ	UST629ZL
	1000	UST620	UST620HDZ	UST620ZL

## Cable tray Cross-over

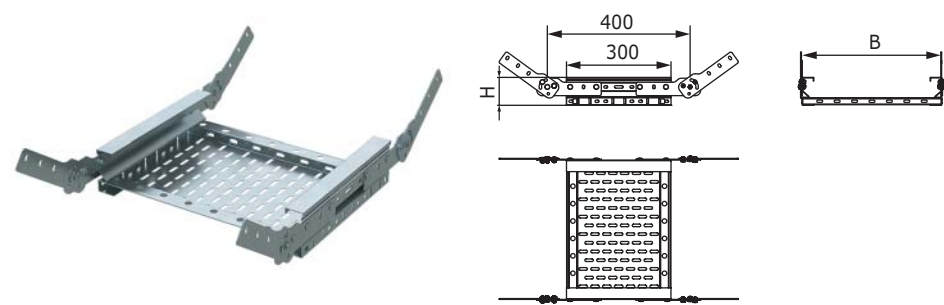


### Purpose:

- mounting of cable route crosses on horizontal planes;
- available on request R600-1000.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	USX682	USX682HDZ	USX682ZL
	300	USX683	USX683HDZ	USX683ZL
	400	USX684	USX684HDZ	USX684ZL
	500	USX685	USX685HDZ	USX685ZL
	600	USX686	USX686HDZ	USX686ZL
	700	USX687	USX687HDZ	USX687ZL
	800	USX688	USX688HDZ	USX688ZL
	900	USX689	USX689HDZ	USX689ZL
	1000	USX680	USX680HDZ	USX680ZL
100	200	USX612	USX612HDZ	USX612ZL
	300	USX613	USX613HDZ	USX613ZL
	400	USX614	USX614HDZ	USX614ZL
	500	USX615	USX615HDZ	USX615ZL
	600	USX616	USX616HDZ	USX616ZL
	700	USX617	USX617HDZ	USX617ZL
	800	USX618	USX618HDZ	USX618ZL
	900	USX619	USX619HDZ	USX619ZL
	1000	USX610	USX610HDZ	USX610ZL
150	200	USX652	USX652HDZ	USX652ZL
	300	USX653	USX653HDZ	USX653ZL
	400	USX654	USX654HDZ	USX654ZL
	500	USX655	USX655HDZ	USX655ZL
	600	USX656	USX656HDZ	USX656ZL
	700	USX657	USX657HDZ	USX657ZL
	800	USX658	USX658HDZ	USX658ZL
	900	USX659	USX659HDZ	USX659ZL
	1000	USX650	USX650HDZ	USX650ZL
200	200	USX622	USX622HDZ	USX622ZL
	300	USX623	USX623HDZ	USX623ZL
	400	USX624	USX624HDZ	USX624ZL
	500	USX625	USX625HDZ	USX625ZL
	600	USX626	USX626HDZ	USX626ZL
	700	USX627	USX627HDZ	USX627ZL
	800	USX628	USX628HDZ	USX628ZL
	900	USX629	USX629HDZ	USX629ZL
	1000	USX620	USX620HDZ	USX620ZL

Vertical cable tray joint



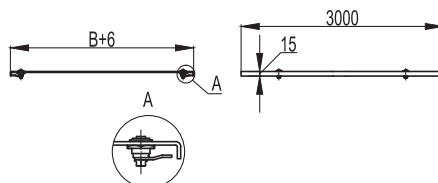
- Purpose:**
- mounting of the line rises and down-drops of cable route;
  - inclination of cable route under arbitrary angle.
- Distinctive features:**
- for increase in turning radius the several sections are mounted in row.

Height H, mm	Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	200	USF082	USF082HDZ	USF082ZL
	300	USF083	USF083HDZ	USF083ZL
	400	USF084	USF084HDZ	USF084ZL
	500	USF085	USF085HDZ	USF085ZL
	600	USF086	USF086HDZ	USF086ZL
	700	USF087	USF087HDZ	USF087ZL
	800	USF088	USF088HDZ	USF088ZL
	900	USF089	USF089HDZ	USF089ZL
	1000	USF080	USF080HDZ	USF080ZL
100	200	USF012	USF012HDZ	USF012ZL
	300	USF013	USF013HDZ	USF013ZL
	400	USF014	USF014HDZ	USF014ZL
	500	USF015	USF015HDZ	USF015ZL
	600	USF016	USF016HDZ	USF016ZL
	700	USF017	USF017HDZ	USF017ZL
	800	USF018	USF018HDZ	USF018ZL
	900	USF019	USF019HDZ	USF019ZL
	1000	USF010	USF010HDZ	USF010ZL
150	200	USF052	USF052HDZ	USF052ZL
	300	USF053	USF053HDZ	USF053ZL
	400	USF054	USF054HDZ	USF054ZL
	500	USF055	USF055HDZ	USF055ZL
	600	USF056	USF056HDZ	USF056ZL
	700	USF057	USF057HDZ	USF057ZL
	800	USF058	USF058HDZ	USF058ZL
	900	USF059	USF059HDZ	USF059ZL
	1000	USF050	USF050HDZ	USF050ZL
200	200	USF022	USF022HDZ	USF022ZL
	300	USF023	USF023HDZ	USF023ZL
	400	USF024	USF024HDZ	USF024ZL
	500	USF025	USF025HDZ	USF025ZL
	600	USF026	USF026HDZ	USF026ZL
	700	USF027	USF027HDZ	USF027ZL
	800	USF028	USF028HDZ	USF028ZL
	900	USF029	USF029HDZ	USF029ZL
	1000	USF020	USF020HDZ	USF020ZL



## Covers

### Cover with twist lock


**Purpose:**

- protects cable from outside environment;
- mounting of cable route on horizontal planes.

**Distinctive features:**

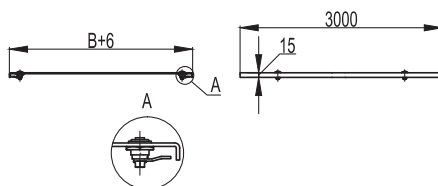
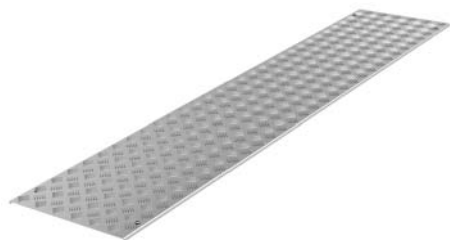
- fixed with 4 twist locks.

**Characteristics:**

- thickness – 1,5 mm.

Base width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
200	UKS302	UKS302HDZ	UKS302ZL
300	UKS303	UKS303HDZ	UKS303ZL
400	UKS304	UKS304HDZ	UKS304ZL
500	UKS305	UKS305HDZ	UKS305ZL
600	UKS306	UKS306HDZ	UKS306ZL
700	UKS307	UKS307HDZ	UKS307ZL
800	UKS308	UKS308HDZ	UKS308ZL
900	UKS309	UKS309HDZ	UKS309ZL
1000	UKS300	UKS300HDZ	UKS300ZL

### Corrugated cover with twist locks


**Purpose:**

- protects cable from outside environment;
- floor routing.

**Distinctive features:**

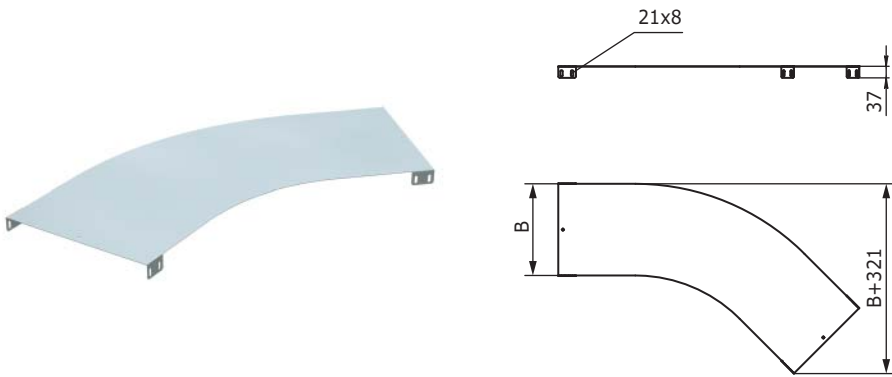
- fixed with 4 twist locks.

**Characteristics:**

- material: aluminum;
- thickness – 3 mm.

Base width B, mm	Code
200	UKS312
300	UKS313
400	UKS314
500	UKS315
600	UKS316
700	UKS317
800	UKS318
900	UKS319
1000	UKS310

Cover for horizontal bend 45°



**Purpose:**

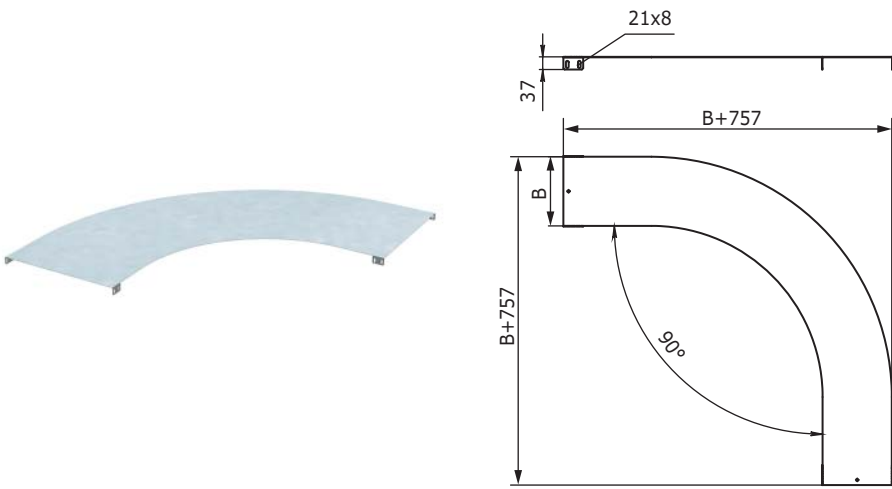
- protects cable from outside environment;
- thickness – 1 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Base width B, mm	Code, ver. 1	Code, ver. 4
200	UKC602	UKC602ZL
300	UKC603	UKC603ZL
400	UKC604	UKC604ZL
500	UKC605	UKC605ZL
600	UKC606	UKC606ZL
700	UKC607	UKC607ZL
800	UKC608	UKC608ZL
900	UKC609	UKC609ZL
1000	UKC600	UKC600ZL

Cover for horizontal bend 90°



**Purpose:**

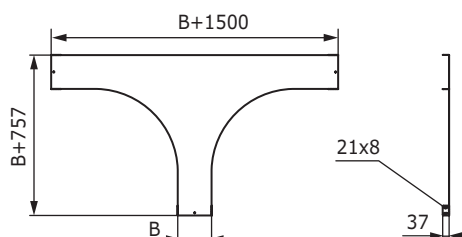
- protects cable from outside environment;
- thickness – 1 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Base width B, mm	Code, ver. 1	Code, ver. 4
200	UKD602	UKD602ZL
300	UKD603	UKD603ZL
400	UKD604	UKD604ZL
500	UKD605	UKD605ZL
600	UKD606	UKD606ZL
700	UKD607	UKD607ZL
800	UKD608	UKD608ZL
900	UKD609	UKD609ZL
1000	UKD600	UKD600ZL

## Cover for T-branch



### Purpose:

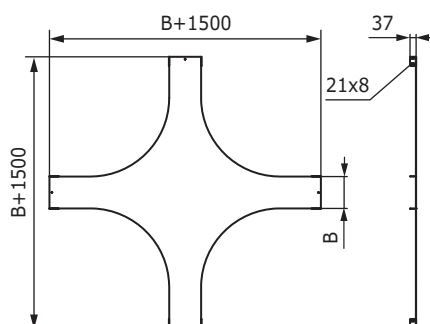
- protects cable from outside environment;
- thickness – 1 mm.

### Mounting accessories:

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Base width B, mm	Code, ver. 1	Code, ver. 4
200	UKT602	UKT602ZL
300	UKT603	UKT603ZL
400	UKT604	UKT604ZL
500	UKT605	UKT605ZL
600	UKT606	UKT606ZL
700	UKT607	UKT607ZL
800	UKT608	UKT608ZL
900	UKT609	UKT609ZL
1000	UKT600	UKT600ZL

## Cover for Cross-over



### Purpose:

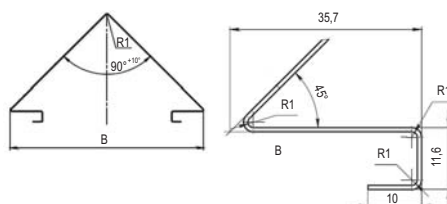
- protects cable from outside environment;
- thickness – 1 mm.

### Mounting accessories:

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Base width B, mm	Code, ver. 1	Code, ver. 4
200	UKX602	UKX602ZL
300	UKX603	UKX603ZL
400	UKX604	UKX604ZL
500	UKX605	UKX605ZL
600	UKX606	UKX606ZL
700	UKX607	UKX607ZL
800	UKX608	UKX608ZL
900	UKX609	UKX609ZL
1000	UKX600	UKX600ZL

## Gable cover



### Purpose:

- protects cable from snow.

### Distinctive features:

- corresponds to CNR 2.01.07-85.

### Characteristics:

- thickness – 0,8 mm.

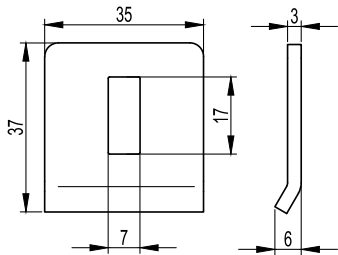
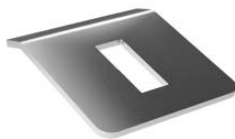
### Mounting accessories:

- in areas with a strong wind load it is necessary to use a holder UKH500HDZL.

Base width B, mm	Code, ver. 1	Code, ver. 2
200	UKS322	UKS322ZL
300	UKS323	UKS323ZL
400	UKS324	UKS324ZL
500	UKS325	UKS325ZL
600	UKS326	UKS326ZL
700	UKS327	UKS327ZL
800	UKS328	UKS328ZL
900	UKS329	UKS329ZL
1000	UKS320	UKS320ZL

Mounting accessories

Hold-down clamp



**Purpose:**

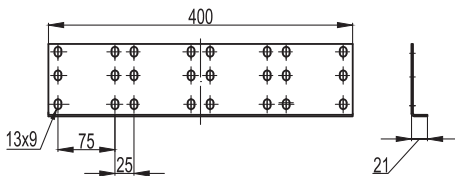
- ladders mounting to consoles and suspensions.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Weight, version 1, kg/pcs.	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 4
0,003	LP1000	LP1000HDZL	LP1000INOX	LP1000HDZL

Horizontal connector



**Purpose:**

- interconnection of elements.

**Characteristics:**

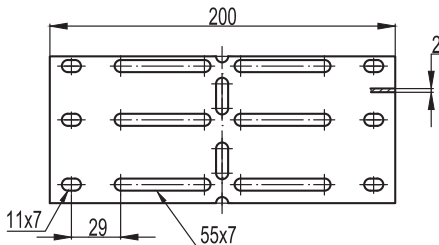
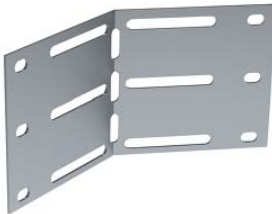
- steel thickness – 3 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Tray height, mm	Number of bolted connections, pcs.	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	8	UGH480	UGH480HDZL	UGH480HDZL
100	8	UGH410	UGH410HDZL	UGH410HDZL
150	8	UGH450	UGH450HDZL	UGH450HDZL
200	12	UGH420	UGH420HDZL	UGH420HDZL

Angle connector



**Purpose:**

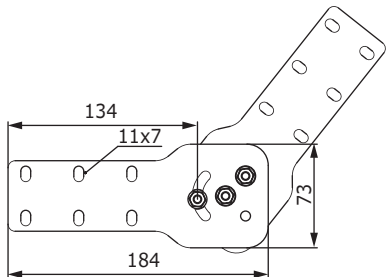
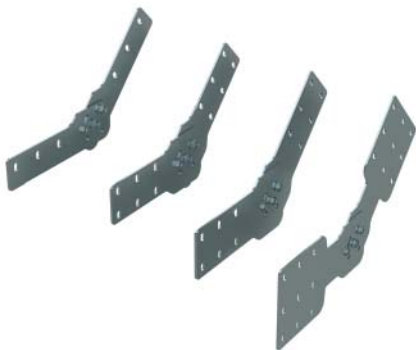
- cable route bend in the horizontal plane at an arbitrary angle.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Tray height, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	UHH080	UHH080HDZL	UHH080HDZL
100	UHH010	UHH010HDZL	UHH010HDZL
150	UHH050	UHH050HDZL	UHH050HDZL
200	UHH020	UHH020HDZL	UHH020HDZL

Adjustable connector



**Purpose:**

- inclination of cable route under arbitrary angle.

**Characteristics:**

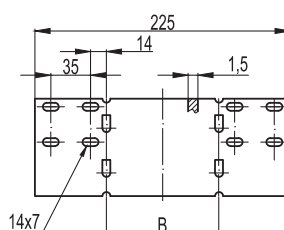
- steel thickness – 2 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Tray height, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	UVH080	UVH080HDZL	UVH080HDZL
100	UVH010	UVH010HDZL	UVH010HDZL
150	UVH050	UVH050HDZL	UVH050HDZL
200	UVH020	UVH020HDZL	UVH020HDZL

## Reducer / stop-end



### Purpose:

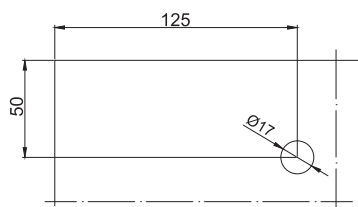
- connection of trays with different width;
- stop-end for place the end of cable route.

### Mounting accessories:

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Tray height, mm	Connector adapter width B, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	100	URH081	URH081HDZL	URH081HDZL
	200	URH082	URH082HDZL	URH082HDZL
	300	URH083	URH083HDZL	URH083HDZL
	400	URH084	URH084HDZL	URH084HDZL
	500	URH085	URH085HDZL	URH085HDZL
	600	URH086	URH086HDZL	URH086HDZL
	700	URH087	URH087HDZL	URH087HDZL
	800	URH088	URH088HDZL	URH088HDZL
	900	URH089	URH089HDZL	URH089HDZL
	1000	URH080	URH080HDZL	URH080HDZL
100	100	URH011	URH011HDZL	URH011HDZL
	200	URH012	URH012HDZL	URH012HDZL
	300	URH013	URH013HDZL	URH013HDZL
	400	URH014	URH014HDZL	URH014HDZL
	500	URH015	URH015HDZL	URH015HDZL
	600	URH016	URH016HDZL	URH016HDZL
	700	URH017	URH017HDZL	URH017HDZL
	800	URH018	URH018HDZL	URH018HDZL
	900	URH019	URH019HDZL	URH019HDZL
	1000	URH010	URH010HDZL	URH010HDZL
150	100	URH051	URH051HDZL	URH051HDZL
	200	URH052	URH052HDZL	URH052HDZL
	300	URH053	URH053HDZL	URH053HDZL
	400	URH054	URH054HDZL	URH054HDZL
	500	URH055	URH055HDZL	URH055HDZL
	600	URH056	URH056HDZL	URH056HDZL
	700	URH057	URH057HDZL	URH057HDZL
	800	URH058	URH058HDZL	URH058HDZL
	900	URH059	URH059HDZL	URH059HDZL
	1000	URH050	URH050HDZL	URH050HDZL
200	100	URH021	URH021HDZL	URH021HDZL
	200	URH022	URH022HDZL	URH022HDZL
	300	URH023	URH023HDZL	URH023HDZL
	400	URH024	URH024HDZL	URH024HDZL
	500	URH025	URH025HDZL	URH025HDZL
	600	URH026	URH026HDZL	URH026HDZL
	700	URH027	URH027HDZL	URH027HDZL
	800	URH028	URH028HDZL	URH028HDZL
	900	URH029	URH029HDZL	URH029HDZL
	1000	URH020	URH020HDZL	URH020HDZL

## Twist lock



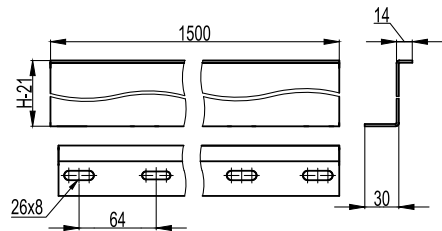
### Purpose:

- mounting on the cover in case of length changes on the facility.

Code

UKZ200

Barrier strip



**Purpose:**

- separating of cables groups inside a tray.

**Characteristics:**

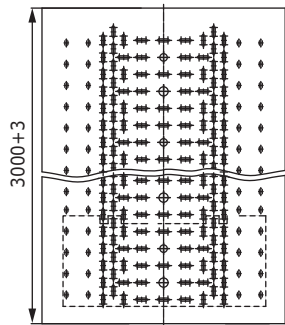
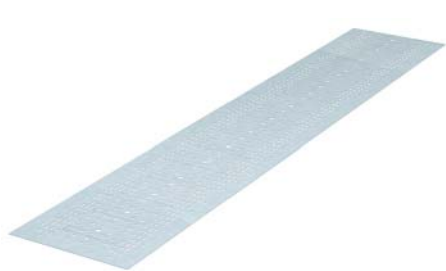
- steel thickness – 2 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Height H, mm	Code, ver. 1	Code, ver. 2	Code, ver. 4
80	UPH080	UPH080HDZL	UPH080HDZL
100	UPH010	UPH010HDZL	UPH010HDZL
150	UPH050	UPH050HDZL	UPH050HDZL
200	UPH020	UPH020HDZL	UPH020HDZL

Insert plate



**Purpose:**

- protects cable from outside environment;
- avoiding of thin-walled cable drooping.

**Characteristics:**

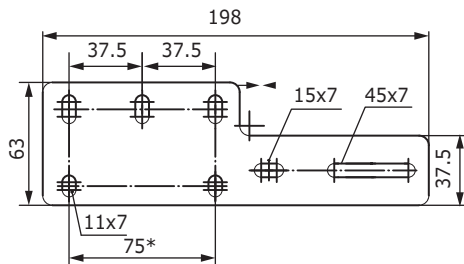
- length – 3000 mm;
- thickness – 1 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Base insertion	Code, ver. 1	Code, ver. 2
200	UDM302	UDM302HDZ
300	UDM303	UDM303HDZ
400	UDM304	UDM304HDZ
500	UDM305	UDM305HDZ
600	UDM306	UDM306HDZ
700	UDM307	UDM307HDZ
800	UDM308	UDM308HDZ
900	UDM309	UDM309HDZ

Universal connector



**Purpose:**

- connecting of Heavy-Duty cable ladder "U5 Combitech" with trays "L5 Combitech" and "S5 Combitech" not depending on the tray height.

**Characteristics:**

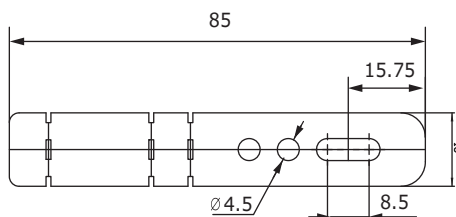
- length – 200 mm;
- thickness – 2,5 mm.

**Mounting accessories:**

- the following metalware is used for connection: bolt M6x10 (code CM010610), nut M6 (code CM100600).

Code, ver. 1	Code, ver. 2	Code, ver. 4
UGH200	UGH200HDZL	UGH200HDZL

## Gable cover holder



### Purpose:

- additional fixation of gable cover in case of strong wind loads.

### Characteristics:

- thickness – 1 mm.

Code, ver. 2	Code, ver. 4
UKH500HDZL	UKH500HDZL

## Cover elevator



### Purpose:

- providing additional ventilation of cable route;
- this cover elevator is established through every meter of the straight cover.

### Characteristics:

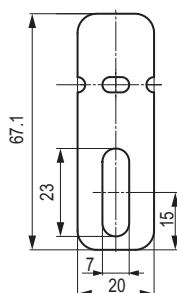
- thickness – 1,5 mm;
- lifting height of straight cover – up to 50 mm.

### Mounting accessories:

- the following metalware is used for connection: bolt M6x20 (code CM010620), nut M6 (code CM100600).

Code, ver. 1	Code, ver. 2	Code, ver. 4
UKH600	UKH600HDZL	UKH600HDZL

## Straight cover holder



### Purpose:

- additional fixation of straight cover in case of strong wind loads.

### Characteristics:

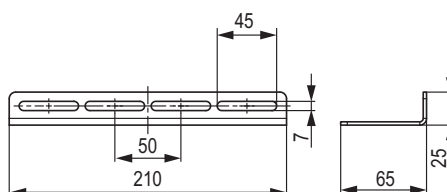
- thickness – 2 mm.

### Mounting accessories:

- the following metalware is used for connection: bolt M6x20 (code CM010620HDZ), nut M6 (code CM100600HDZ).

Code, ver. 2	Code, ver. 4
UKH400HDZL	UKH400HDZL

## Structural beam clamp



### Purpose:

- for fastening cable ladders to Structural beam.

### Characteristics:

- thickness – 2,5 mm.

### Mounting accessories:

- as a set.

Code, ver. 2	Code, ver. 4
UGB500HDZL	UGB500HDZL



Selection table



Element height, mm	Version	Horizontal connector	Angle connector	Adjustable connector	Hold-down clamp	Barrier strip
80	ver. 1	UGH480	UHH080	UVH080	LP1000	UPH080
	ver. 2	UGH480HDZL	UHH080HDZL	UVH080HDZL	LP1000HDZL	UPH080HDZL
	ver. 4	UGH480HDZL	UHH080HDZL	UVH080HDZL	LP1000HDZL	UPH080HDZL
100	ver. 1	UGH410	UHH010	UVH010	LP1000	UPH010
	ver. 2	UGH410HDZL	UHH010HDZL	UVH010HDZL	LP1000HDZL	UPH010HDZL
	ver. 4	UGH410HDZL	UHH010HDZL	UVH010HDZL	LP1000HDZL	UPH010HDZL
150	ver. 1	UGH450	UHH050	UVH050	LP1000	UPH050
	ver. 2	UGH450HDZL	UHH050HDZL	UVH050HDZL	LP1000HDZL	UPH050HDZL
	ver. 4	UGH450HDZL	UHH050HDZL	UVH050HDZL	LP1000HDZL	UPH050HDZL
200	ver. 1	UGH420	UHH020	UVH020	LP1000	UPH020
	ver. 2	UGH420HDZL	UHH020HDZL	UVH020HDZL	LP1000HDZL	UPH020HDZL
	ver. 4	UGH420HDZL	UHH020HDZL	UVH020HDZL	LP1000HDZL	UPH020HDZL

## System accessories 80 mm high

### Versions:

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 4 – zinc-lamellar coat.



Height, mm	Width, mm	Version	Straight elements				Perforated straight elements			
			thickness 1,5 mm		thickness 2 mm		thickness 1,5 mm		thickness 2 mm	
			3 m	6 m	3 m	6 m	3 m	6 m	3 m	6 m
80	200	ver. 1	ULM382	ULM682	ULH382	ULH682	USM382	USM682	USH382	USH682
		ver. 2	ULM382HDZ	ULM682HDZ	ULH382HDZ	ULH682HDZ	USM382HDZ	USM682HDZ	USH382HDZ	USH682HDZ
		ver. 4	ULM382ZL	ULM682ZL	ULH382ZL	ULH682ZL	USM382ZL	USM682ZL	USH382ZL	USH682ZL
	300	ver. 1	ULM383	ULM683	ULH383	ULH683	USM383	USM683	USH383	USH683
		ver. 2	ULM383HDZ	ULM683HDZ	ULH383HDZ	ULH683HDZ	USM383HDZ	USM683HDZ	USH383HDZ	USH683HDZ
		ver. 4	ULM383ZL	ULM683ZL	ULH383ZL	ULH683ZL	USM383ZL	USM683ZL	USH383ZL	USH683ZL
	400	ver. 1	ULM384	ULM684	ULH384	ULH684	USM384	USM684	USH384	USH684
		ver. 2	ULM384HDZ	ULM684HDZ	ULH384HDZ	ULH684HDZ	USM384HDZ	USM684HDZ	USH384HDZ	USH684HDZ
		ver. 4	ULM384ZL	ULM684ZL	ULH384ZL	ULH684ZL	USM384ZL	USM684ZL	USH384ZL	USH684ZL
	500	ver. 1	ULM385	ULM685	ULH385	ULH685	USM385	USM685	USH385	USH685
		ver. 2	ULM385HDZ	ULM685HDZ	ULH385HDZ	ULH685HDZ	USM385HDZ	USM685HDZ	USH385HDZ	USH685HDZ
		ver. 4	ULM385ZL	ULM685ZL	ULH385ZL	ULH685ZL	USM385ZL	USM685ZL	USH385ZL	USH685ZL
	600	ver. 1	ULM386	ULM686	ULH386	ULH686	USM386	USM686	USH386	USH686
		ver. 2	ULM386HDZ	ULM686HDZ	ULH386HDZ	ULH686HDZ	USM386HDZ	USM686HDZ	USH386HDZ	USH686HDZ
		ver. 4	ULM386ZL	ULM686ZL	ULH386ZL	ULH686ZL	USM386ZL	USM686ZL	USH386ZL	USH686ZL
	700	ver. 1	ULM387	ULM687	ULH387	ULH687	USM387	USM687	USH387	USH687
		ver. 2	ULM387HDZ	ULM687HDZ	ULH387HDZ	ULH687HDZ	USM387HDZ	USM687HDZ	USH387HDZ	USH687HDZ
		ver. 4	ULM387ZL	ULM687ZL	ULH387ZL	ULH687ZL	USM387ZL	USM687ZL	USH387ZL	USH687ZL
	800	ver. 1	ULM388	ULM688	ULH388	ULH688	USM388	USM688	USH388	USH688
		ver. 2	ULM388HDZ	ULM688HDZ	ULH388HDZ	ULH688HDZ	USM388HDZ	USM688HDZ	USH388HDZ	USH688HDZ
		ver. 4	ULM388ZL	ULM688ZL	ULH388ZL	ULH688ZL	USM388ZL	USM688ZL	USH388ZL	USH688ZL
	900	ver. 1	ULM389	ULM689	ULH389	ULH689	USM389	USM689	USH389	USH689
		ver. 2	ULM389HDZ	ULM689HDZ	ULH389HDZ	ULH689HDZ	USM389HDZ	USM689HDZ	USH389HDZ	USH689HDZ
		ver. 4	ULM389ZL	ULM689ZL	ULH389ZL	ULH689ZL	USM389ZL	USM689ZL	USH389ZL	USH689ZL
	1000	ver. 1	ULM380	ULM680	ULH380	ULH680	USM380	USM680	USH380	USH680
		ver. 2	ULM380HDZ	ULM680HDZ	ULH380HDZ	ULH680HDZ	USM380HDZ	USM680HDZ	USH380HDZ	USH680HDZ
		ver. 4	ULM380ZL	ULM680ZL	ULH380ZL	ULH680ZL	USM380ZL	USM680ZL	USH380ZL	USH680ZL



Height, mm	Width, mm	Version	Bend 45°		Bend 90°		T-branch		Cross-over		Vertical joint	
			ladder	tray	ladder	tray	ladder	tray	ladder	tray	ladder	tray
80	200	ver. 1	ULC682	USC682	ULD682	USD682	ULT682	UST682	ULX682	USX682	ULF082	USF082
		ver. 2	ULC682HDZ	USC682HDZ	ULD682HDZ	USD682HDZ	ULT682HDZ	UST682HDZ	ULX682HDZ	USX682HDZ	ULF082HDZ	USF082HDZ
		ver. 4	ULC682ZL	USC682ZL	ULD682ZL	USD682ZL	ULT682ZL	UST682ZL	ULX682ZL	USX682ZL	ULF082ZL	USF082ZL
	300	ver. 1	ULC683	USC683	ULD683	USD683	ULT683	UST683	ULX683	USX683	ULF083	USF083
		ver. 2	ULC683HDZ	USC683HDZ	ULD683HDZ	USD683HDZ	ULT683HDZ	UST683HDZ	ULX683HDZ	USX683HDZ	ULF083HDZ	USF083HDZ
		ver. 4	ULC683ZL	USC683ZL	ULD683ZL	USD683ZL	ULT683ZL	UST683ZL	ULX683ZL	USX683ZL	ULF083ZL	USF083ZL
	400	ver. 1	ULC684	USC684	ULD684	USD684	ULT684	UST684	ULX684	USX684	ULF084	USF084
		ver. 2	ULC684HDZ	USC684HDZ	ULD684HDZ	USD684HDZ	ULT684HDZ	UST684HDZ	ULX684HDZ	USX684HDZ	ULF084HDZ	USF084HDZ
		ver. 4	ULC684ZL	USC684ZL	ULD684ZL	USD684ZL	ULT684ZL	UST684ZL	ULX684ZL	USX684ZL	ULF084ZL	USF084ZL
	500	ver. 1	ULC685	USC685	ULD685	USD685	ULT685	UST685	ULX685	USX685	ULF085	USF085
		ver. 2	ULC685HDZ	USC685HDZ	ULD685HDZ	USD685HDZ	ULT685HDZ	UST685HDZ	ULX685HDZ	USX685HDZ	ULF085HDZ	USF085HDZ
		ver. 4	ULC685ZL	USC685ZL	ULD685ZL	USD685ZL	ULT685ZL	UST685ZL	ULX685ZL	USX685ZL	ULF085ZL	USF085ZL
	600	ver. 1	ULC686	USC686	ULD686	USD686	ULT686	UST686	ULX686	USX686	ULF086	USF086
		ver. 2	ULC686HDZ	USC686HDZ	ULD686HDZ	USD686HDZ	ULT686HDZ	UST686HDZ	ULX686HDZ	USX686HDZ	ULF086HDZ	USF086HDZ
		ver. 4	ULC686ZL	USC686ZL	ULD686ZL	USD686ZL	ULT686ZL	UST686ZL	ULX686ZL	USX686ZL	ULF086ZL	USF086ZL
	700	ver. 1	ULC687	USC687	ULD687	USD687	ULT687	UST687	ULX687	USX687	ULF087	USF087
		ver. 2	ULC687HDZ	USC687HDZ	ULD687HDZ	USD687HDZ	ULT687HDZ	UST687HDZ	ULX687HDZ	USX687HDZ	ULF087HDZ	USF087HDZ
		ver. 4	ULC687ZL	USC687ZL	ULD687ZL	USD687ZL	ULT687ZL	UST687ZL	ULX687ZL	USX687ZL	ULF087ZL	USF087ZL
	800	ver. 1	ULC688	USC688	ULD688	USD688	ULT688	UST688	ULX688	USX688	ULF088	USF088
		ver. 2	ULC688HDZ	USC688HDZ	ULD688HDZ	USD688HDZ	ULT688HDZ	UST688HDZ	ULX688HDZ	USX688HDZ	ULF088HDZ	USF088HDZ
		ver. 4	ULC688ZL	USC688ZL	ULD688ZL	USD688ZL	ULT688ZL	UST688ZL	ULX688ZL	USX688ZL	ULF088ZL	USF088ZL
	900	ver. 1	ULC689	USC689	ULD689	USD689	ULT689	UST689	ULX689	USX689	ULF089	USF089
		ver. 2	ULC689HDZ	USC689HDZ	ULD689HDZ	USD689HDZ	ULT689HDZ	UST689HDZ	ULX689HDZ	USX689HDZ	ULF089HDZ	USF089HDZ
		ver. 4	ULC689ZL	USC689ZL	ULD689ZL	USD689ZL	ULT689ZL	UST689ZL	ULX689ZL	USX689ZL	ULF089ZL	USF089ZL
	1000	ver. 1	ULC680	USC680	ULD680	USD680	ULT680	UST680	ULX680	USX680	ULF080	USF080
		ver. 2	ULC680HDZ	USC680HDZ	ULD680HDZ	USD680HDZ	ULT680HDZ	UST680HDZ	ULX680HDZ	USX680HDZ	ULF080HDZ	USF080HDZ
		ver. 4	ULC680ZL	USC680ZL	ULD680ZL	USD680ZL	ULT680ZL	UST680ZL	ULX680ZL	USX680ZL	ULF080ZL	USF080ZL

**Covers**


Width, mm	Version	Cover with twist lock	Corrugated cover with twist lock*
200	ver. 1	UKS302	UKS312
	ver. 2	UKS302HDZ	–
	ver. 4	UKS302ZL	–
300	ver. 1	UKS303	UKS313
	ver. 2	UKS303HDZ	–
	ver. 4	UKS303ZL	–
400	ver. 1	UKS304	UKS314
	ver. 2	UKS304HDZ	–
	ver. 4	UKS304ZL	–
500	ver. 1	UKS305	UKS315
	ver. 2	UKS305HDZ	–
	ver. 4	UKS305ZL	–
600	ver. 1	UKS306	UKS316
	ver. 2	UKS306HDZ	–
	ver. 4	UKS306ZL	–
700	ver. 1	UKS307	UKS317
	ver. 2	UKS307HDZ	–
	ver. 4	UKS307ZL	–
800	ver. 1	UKS308	UKS318
	ver. 2	UKS308HDZ	–
	ver. 4	UKS308ZL	–
900	ver. 1	UKS309	UKS319
	ver. 2	UKS309HDZ	–
	ver. 4	UKS309ZL	–
1000	ver. 1	UKS300	UKS310
	ver. 2	UKS300HDZ	–
	ver. 4	UKS300ZL	–

\* Material – aluminum



Width, mm	Version	Cover for bend 45°	Cover for bend 90°	Cover for T-branch	Cover for cross-over
200	ver. 1	UKC602	UKD602	UKT602	UKX602
	ver. 2	–	–	–	–
	ver. 4	UKC602ZL	UKD602ZL	UKT602ZL	UKX602ZL
300	ver. 1	UKC603	UKD603	UKT603	UKX603
	ver. 2	–	–	–	–
	ver. 4	UKC603ZL	UKD603ZL	UKT603ZL	UKX603ZL
400	ver. 1	UKC604	UKD604	UKT604	UKX604
	ver. 2	–	–	–	–
	ver. 4	UKC604ZL	UKD604ZL	UKT604ZL	UKX604ZL
500	ver. 1	UKC605	UKD605	UKT605	UKX605
	ver. 2	–	–	–	–
	ver. 4	UKC605ZL	UKD605ZL	UKT605ZL	UKX605ZL
600	ver. 1	UKC606	UKD606	UKT606	UKX606
	ver. 2	–	–	–	–
	ver. 4	UKC606ZL	UKD606ZL	UKT606ZL	UKX606ZL
700	ver. 1	UKC607	UKD607	UKT607	UKX607
	ver. 2	–	–	–	–
	ver. 4	UKC607ZL	UKD607ZL	UKT607ZL	UKX607ZL
800	ver. 1	UKC608	UKD608	UKT608	UKX608
	ver. 2	–	–	–	–
	ver. 4	UKC608ZL	UKD608ZL	UKT608ZL	UKX608ZL
900	ver. 1	UKC609	UKD609	UKT609	UKX609
	ver. 2	–	–	–	–
	ver. 4	UKC609ZL	UKD609ZL	UKT609ZL	UKX609ZL
1000	ver. 1	UKC600	UKD600	UKT600	UKX600
	ver. 2	–	–	–	–
	ver. 4	UKC600ZL	UKD600ZL	UKT600ZL	UKX600ZL

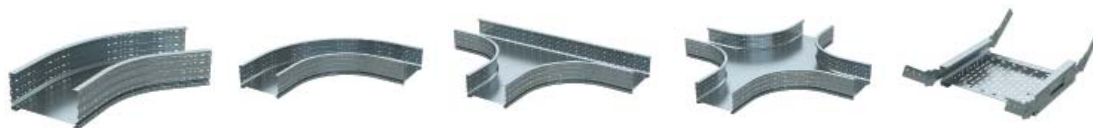
## System accessories 100 mm high

**Versions:**

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 4 – zinc-lamellar coat.



Height, mm	Width, mm	Version	Straight elements				Perforated straight elements			
			thickness 1,5 mm		thickness 2 mm		thickness 1,5 mm		thickness 2 mm	
			3 m	6 m	3 m	6 m	3 m	6 m	3 m	6 m
100	200	ver. 1	ULM312	ULM612	ULH312	ULH612	USM312	USM612	USH312	USH612
		ver. 2	ULM312HDZ	ULM612HDZ	ULH312HDZ	ULH612HDZ	USM312HDZ	USM612HDZ	USH312HDZ	USH612HDZ
		ver. 4	ULM312ZL	ULM612ZL	ULH312ZL	ULH612ZL	USM312ZL	USM612ZL	USH312ZL	USH612ZL
	300	ver. 1	ULM313	ULM613	ULH313	ULH613	USM313	USM613	USH313	USH613
		ver. 2	ULM313HDZ	ULM613HDZ	ULH313HDZ	ULH613HDZ	USM313HDZ	USM613HDZ	USH313HDZ	USH613HDZ
		ver. 4	ULM313ZL	ULM613ZL	ULH313ZL	ULH613ZL	USM313ZL	USM613ZL	USH313ZL	USH613ZL
	400	ver. 1	ULM314	ULM614	ULH314	ULH614	USM314	USM614	USH314	USH614
		ver. 2	ULM314HDZ	ULM614HDZ	ULH314HDZ	ULH614HDZ	USM314HDZ	USM614HDZ	USH314HDZ	USH614HDZ
		ver. 4	ULM314ZL	ULM614ZL	ULH314ZL	ULH614ZL	USM314ZL	USM614ZL	USH314ZL	USH614ZL
	500	ver. 1	ULM315	ULM615	ULH315	ULH615	USM315	USM615	USH315	USH615
		ver. 2	ULM315HDZ	ULM615HDZ	ULH315HDZ	ULH615HDZ	USM315HDZ	USM615HDZ	USH315HDZ	USH615HDZ
		ver. 4	ULM315ZL	ULM615ZL	ULH315ZL	ULH615ZL	USM315ZL	USM615ZL	USH315ZL	USH615ZL
	600	ver. 1	ULM316	ULM616	ULH316	ULH616	USM316	USM616	USH316	USH616
		ver. 2	ULM316HDZ	ULM616HDZ	ULH316HDZ	ULH616HDZ	USM316HDZ	USM616HDZ	USH316HDZ	USH616HDZ
		ver. 4	ULM316ZL	ULM616ZL	ULH316ZL	ULH616ZL	USM316ZL	USM616ZL	USH316ZL	USH616ZL
	700	ver. 1	ULM317	ULM617	ULH317	ULH617	USM317	USM617	USH317	USH617
		ver. 2	ULM317HDZ	ULM617HDZ	ULH317HDZ	ULH617HDZ	USM317HDZ	USM617HDZ	USH317HDZ	USH617HDZ
		ver. 4	ULM317ZL	ULM617ZL	ULH317ZL	ULH617ZL	USM317ZL	USM617ZL	USH317ZL	USH617ZL
	800	ver. 1	ULM318	ULM618	ULH318	ULH618	USM318	USM618	USH318	USH618
		ver. 2	ULM318HDZ	ULM618HDZ	ULH318HDZ	ULH618HDZ	USM318HDZ	USM618HDZ	USH318HDZ	USH618HDZ
		ver. 4	ULM318ZL	ULM618ZL	ULH318ZL	ULH618ZL	USM318ZL	USM618ZL	USH318ZL	USH618ZL
	900	ver. 1	ULM319	ULM619	ULH319	ULH619	USM319	USM619	USH319	USH619
		ver. 2	ULM319HDZ	ULM619HDZ	ULH319HDZ	ULH619HDZ	USM319HDZ	USM619HDZ	USH319HDZ	USH619HDZ
		ver. 4	ULM319ZL	ULM619ZL	ULH319ZL	ULH619ZL	USM319ZL	USM619ZL	USH319ZL	USH619ZL
	1000	ver. 1	ULM310	ULM610	ULH310	ULH610	USM310	USM610	USH310	USH610
		ver. 2	ULM310HDZ	ULM610HDZ	ULH310HDZ	ULH610HDZ	USM310HDZ	USM610HDZ	USH310HDZ	USH610HDZ
		ver. 4	ULM310ZL	ULM610ZL	ULH310ZL	ULH610ZL	USM310ZL	USM610ZL	USH310ZL	USH610ZL



Height, mm	Width, mm	Version	Bend 45°		Bend 90°		T-branch		Cross-over		Vertical joint	
			ladder	tray	ladder	tray	ladder	tray	ladder	tray	ladder	tray
100	200	ver. 1	ULC612	USC612	ULD612	USD612	ULT612	UST612	ULX612	USX612	ULF012	USF012
		ver. 2	ULC612HDZ	USC612HDZ	ULD612HDZ	USD612HDZ	ULT612HDZ	UST612HDZ	ULX612HDZ	USX612HDZ	ULF012HDZ	USF012HDZ
		ver. 4	ULC612ZL	USC612ZL	ULD612ZL	USD612ZL	ULT612ZL	UST612ZL	ULX612ZL	USX612ZL	ULF012ZL	USF012ZL
	300	ver. 1	ULC613	USC613	ULD613	USD613	ULT613	UST613	ULX613	USX613	ULF013	USF013
		ver. 2	ULC613HDZ	USC613HDZ	ULD613HDZ	USD613HDZ	ULT613HDZ	UST613HDZ	ULX613HDZ	USX613HDZ	ULF013HDZ	USF013HDZ
		ver. 4	ULC613ZL	USC613ZL	ULD613ZL	USD613ZL	ULT613ZL	UST613ZL	ULX613ZL	USX613ZL	ULF013ZL	USF013ZL
	400	ver. 1	ULC614	USC614	ULD614	USD614	ULT614	UST614	ULX614	USX614	ULF014	USF014
		ver. 2	ULC614HDZ	USC614HDZ	ULD614HDZ	USD614HDZ	ULT614HDZ	UST614HDZ	ULX614HDZ	USX614HDZ	ULF014HDZ	USF014HDZ
		ver. 4	ULC614ZL	USC614ZL	ULD614ZL	USD614ZL	ULT614ZL	UST614ZL	ULX614ZL	USX614ZL	ULF014ZL	USF014ZL
	500	ver. 1	ULC615	USC615	ULD615	USD615	ULT615	UST615	ULX615	USX615	ULF015	USF015
		ver. 2	ULC615HDZ	USC615HDZ	ULD615HDZ	USD615HDZ	ULT615HDZ	UST615HDZ	ULX615HDZ	USX615HDZ	ULF015HDZ	USF015HDZ
		ver. 4	ULC615ZL	USC615ZL	ULD615ZL	USD615ZL	ULT615ZL	UST615ZL	ULX615ZL	USX615ZL	ULF015ZL	USF015ZL
	600	ver. 1	ULC616	USC616	ULD616	USD616	ULT616	UST616	ULX616	USX616	ULF016	USF016
		ver. 2	ULC616HDZ	USC616HDZ	ULD616HDZ	USD616HDZ	ULT616HDZ	UST616HDZ	ULX616HDZ	USX616HDZ	ULF016HDZ	USF016HDZ
		ver. 4	ULC616ZL	USC616ZL	ULD616ZL	USD616ZL	ULT616ZL	UST616ZL	ULX616ZL	USX616ZL	ULF016ZL	USF016ZL
	700	ver. 1	ULC617	USC617	ULD617	USD617	ULT617	UST617	ULX617	USX617	ULF017	USF017
		ver. 2	ULC617HDZ	USC617HDZ	ULD617HDZ	USD617HDZ	ULT617HDZ	UST617HDZ	ULX617HDZ	USX617HDZ	ULF017HDZ	USF017HDZ
		ver. 4	ULC617ZL	USC617ZL	ULD617ZL	USD617ZL	ULT617ZL	UST617ZL	ULX617ZL	USX617ZL	ULF017ZL	USF017ZL
	800	ver. 1	ULC618	USC618	ULD618	USD618	ULT618	UST618	ULX618	USX618	ULF018	USF018
		ver. 2	ULC618HDZ	USC618HDZ	ULD618HDZ	USD618HDZ	ULT618HDZ	UST618HDZ	ULX618HDZ	USX618HDZ	ULF018HDZ	USF018HDZ
		ver. 4	ULC618ZL	USC618ZL	ULD618ZL	USD618ZL	ULT618ZL	UST618ZL	ULX618ZL	USX618ZL	ULF018ZL	USF018ZL
	900	ver. 1	ULC619	USC619	ULD619	USD619	ULT619	UST619	ULX619	USX619	ULF019	USF019
		ver. 2	ULC619HDZ	USC619HDZ	ULD619HDZ	USD619HDZ	ULT619HDZ	UST619HDZ	ULX619HDZ	USX619HDZ	ULF019HDZ	USF019HDZ
		ver. 4	ULC619ZL	USC619ZL	ULD619ZL	USD619ZL	ULT619ZL	UST619ZL	ULX619ZL	USX619ZL	ULF019ZL	USF019ZL
	1000	ver. 1	ULC610	USC610	ULD610	USD610	ULT610	UST610	ULX610	USX610	ULF010	USF010
		ver. 2	ULC610HDZ	USC610HDZ	ULD610HDZ	USD610HDZ	ULT610HDZ	UST610HDZ	ULX610HDZ	USX610HDZ	ULF010HDZ	USF010HDZ
		ver. 4	ULC610ZL	USC610ZL	ULD610ZL	USD610ZL	ULT610ZL	UST610ZL	ULX610ZL	USX610ZL	ULF010ZL	USF010ZL



**Covers**


Width, mm	Version	Cover with twist lock	Corrugated cover with twist lock*
200	ver. 1	UKS302	UKS312
	ver. 2	UKS302HDZ	–
	ver. 4	UKS302ZL	–
300	ver. 1	UKS303	UKS313
	ver. 2	UKS303HDZ	–
	ver. 4	UKS303ZL	–
400	ver. 1	UKS304	UKS314
	ver. 2	UKS304HDZ	–
	ver. 4	UKS304ZL	–
500	ver. 1	UKS305	UKS315
	ver. 2	UKS305HDZ	–
	ver. 4	UKS305ZL	–
600	ver. 1	UKS306	UKS316
	ver. 2	UKS306HDZ	–
	ver. 4	UKS306ZL	–
700	ver. 1	UKS307	UKS317
	ver. 2	UKS307HDZ	–
	ver. 4	UKS307ZL	–
800	ver. 1	UKS308	UKS318
	ver. 2	UKS308HDZ	–
	ver. 4	UKS308ZL	–
900	ver. 1	UKS309	UKS319
	ver. 2	UKS309HDZ	–
	ver. 4	UKS309ZL	–
1000	ver. 1	UKS300	UKS310
	ver. 2	UKS300HDZ	–
	ver. 4	UKS300ZL	–

\* Material – aluminum



Width, mm	Version	Cover for bend 45°	Cover for bend 90°	Cover for T-branch	Cover for cross-over
200	ver. 1	UKC602	UKD602	UKT602	UKX602
	ver. 2	–	–	–	–
	ver. 4	UKC602ZL	UKD602ZL	UKT602ZL	UKX602ZL
300	ver. 1	UKC603	UKD603	UKT603	UKX603
	ver. 2	–	–	–	–
	ver. 4	UKC603ZL	UKD603ZL	UKT603ZL	UKX603ZL
400	ver. 1	UKC604	UKD604	UKT604	UKX604
	ver. 2	–	–	–	–
	ver. 4	UKC604ZL	UKD604ZL	UKT604ZL	UKX604ZL
500	ver. 1	UKC605	UKD605	UKT605	UKX605
	ver. 2	–	–	–	–
	ver. 4	UKC605ZL	UKD605ZL	UKT605ZL	UKX605ZL
600	ver. 1	UKC606	UKD606	UKT606	UKX606
	ver. 2	–	–	–	–
	ver. 4	UKC606ZL	UKD606ZL	UKT606ZL	UKX606ZL
700	ver. 1	UKC607	UKD607	UKT607	UKX607
	ver. 2	–	–	–	–
	ver. 4	UKC607ZL	UKD607ZL	UKT607ZL	UKX607ZL
800	ver. 1	UKC608	UKD608	UKT608	UKX608
	ver. 2	–	–	–	–
	ver. 4	UKC608ZL	UKD608ZL	UKT608ZL	UKX608ZL
900	ver. 1	UKC609	UKD609	UKT609	UKX609
	ver. 2	–	–	–	–
	ver. 4	UKC609ZL	UKD609ZL	UKT609ZL	UKX609ZL
1000	ver. 1	UKC600	UKD600	UKT600	UKX600
	ver. 2	–	–	–	–
	ver. 4	UKC600ZL	UKD600ZL	UKT600ZL	UKX600ZL

## System accessories 150 mm high

**Versions:**

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 4 – zinc-lamellar coat.



Height, mm	Width, mm	Version	Straight elements				Perforated straight elements			
			thickness 1,5 mm		thickness 2 mm		thickness 1,5 mm		thickness 2 mm	
			3 m	6 m	3 m	6 m	3 m	6 m	3 m	6 m
150	200	ver. 1	ULM352	ULM652	ULH352	ULH652	USM352	USM652	USH352	USH652
		ver. 2	ULM352HDZ	ULM652HDZ	ULH352HDZ	ULH652HDZ	USM352HDZ	USM652HDZ	USH352HDZ	USH652HDZ
		ver. 4	ULM352HDZ	ULM652HDZ	ULH352HDZ	ULH652HDZ	USM352HDZ	USM652HDZ	USH352HDZ	USH652HDZ
	300	ver. 1	ULM353	ULM653	ULH353	ULH653	USM353	USM653	USH353	USH653
		ver. 2	ULM353HDZ	ULM653HDZ	ULH353HDZ	ULH653HDZ	USM353HDZ	USM653HDZ	USH353HDZ	USH653HDZ
		ver. 4	ULM353HDZ	ULM653HDZ	ULH353HDZ	ULH653HDZ	USM353HDZ	USM653HDZ	USH353HDZ	USH653HDZ
	400	ver. 1	ULM354	ULM654	ULH354	ULH654	USM354	USM654	USH354	USH654
		ver. 2	ULM354HDZ	ULM654HDZ	ULH354HDZ	ULH654HDZ	USM354HDZ	USM654HDZ	USH354HDZ	USH654HDZ
		ver. 4	ULM354HDZ	ULM654HDZ	ULH354HDZ	ULH654HDZ	USM354HDZ	USM654HDZ	USH354HDZ	USH654HDZ
	500	ver. 1	ULM355	ULM655	ULH355	ULH655	USM355	USM655	USH355	USH655
		ver. 2	ULM355HDZ	ULM655HDZ	ULH355HDZ	ULH655HDZ	USM355HDZ	USM655HDZ	USH355HDZ	USH655HDZ
		ver. 4	ULM355HDZ	ULM655HDZ	ULH355HDZ	ULH655HDZ	USM355HDZ	USM655HDZ	USH355HDZ	USH655HDZ
	600	ver. 1	ULM356	ULM656	ULH356	ULH656	USM356	USM656	USH356	USH656
		ver. 2	ULM356HDZ	ULM656HDZ	ULH356HDZ	ULH656HDZ	USM356HDZ	USM656HDZ	USH356HDZ	USH656HDZ
		ver. 4	ULM356HDZ	ULM656HDZ	ULH356HDZ	ULH656HDZ	USM356HDZ	USM656HDZ	USH356HDZ	USH656HDZ
	700	ver. 1	ULM357	ULM657	ULH357	ULH657	USM357	USM657	USH357	USH657
		ver. 2	ULM357HDZ	ULM657HDZ	ULH357HDZ	ULH657HDZ	USM357HDZ	USM657HDZ	USH357HDZ	USH657HDZ
		ver. 4	ULM357HDZ	ULM657HDZ	ULH357HDZ	ULH657HDZ	USM357HDZ	USM657HDZ	USH357HDZ	USH657HDZ
	800	ver. 1	ULM358	ULM658	ULH358	ULH658	USM358	USM658	USH358	USH658
		ver. 2	ULM358HDZ	ULM658HDZ	ULH358HDZ	ULH658HDZ	USM358HDZ	USM658HDZ	USH358HDZ	USH658HDZ
		ver. 4	ULM358HDZ	ULM658HDZ	ULH358HDZ	ULH658HDZ	USM358HDZ	USM658HDZ	USH358HDZ	USH658HDZ
	900	ver. 1	ULM359	ULM659	ULH359	ULH659	USM359	USM659	USH359	USH659
		ver. 2	ULM359HDZ	ULM659HDZ	ULH359HDZ	ULH659HDZ	USM359HDZ	USM659HDZ	USH359HDZ	USH659HDZ
		ver. 4	ULM359HDZ	ULM659HDZ	ULH359HDZ	ULH659HDZ	USM359HDZ	USM659HDZ	USH359HDZ	USH659HDZ
	1000	ver. 1	ULM350	ULM650	ULH350	ULH650	USM350	USM650	USH350	USH650
		ver. 2	ULM350HDZ	ULM650HDZ	ULH350HDZ	ULH650HDZ	USM350HDZ	USM650HDZ	USH350HDZ	USH650HDZ
		ver. 4	ULM350HDZ	ULM650HDZ	ULH350HDZ	ULH650HDZ	USM350HDZ	USM650HDZ	USH350HDZ	USH650HDZ

## Selection table



Height, mm	Width, mm	Version	Bend 45°		Bend 90°		T-branch		Cross-over		Vertical joint	
			ladder	tray	ladder	tray	ladder	tray	ladder	tray	ladder	tray
150	200	ver. 1	ULC652	USC652	ULD652	USD652	ULT652	UST652	ULX652	USX652	ULF052	USF052
		ver. 2	ULC652HDZ	USC652HDZ	ULD652HDZ	USD652HDZ	ULT652HDZ	UST652HDZ	ULX652HDZ	USX652HDZ	ULF052HDZ	USF052HDZ
		ver. 4	ULC652ZL	USC652ZL	ULD652ZL	USD652ZL	ULT652ZL	UST652ZL	ULX652ZL	USX652ZL	ULF052ZL	USF052ZL
	300	ver. 1	ULC653	USC653	ULD653	USD653	ULT653	UST653	ULX653	USX653	ULF053	USF053
		ver. 2	ULC653HDZ	USC653HDZ	ULD653HDZ	USD653HDZ	ULT653HDZ	UST653HDZ	ULX653HDZ	USX653HDZ	ULF053HDZ	USF053HDZ
		ver. 4	ULC653ZL	USC653ZL	ULD653ZL	USD653ZL	ULT653ZL	UST653ZL	ULX653ZL	USX653ZL	ULF053ZL	USF053ZL
	400	ver. 1	ULC654	USC654	ULD654	USD654	ULT654	UST654	ULX654	USX654	ULF054	USF054
		ver. 2	ULC654HDZ	USC654HDZ	ULD654HDZ	USD654HDZ	ULT654HDZ	UST654HDZ	ULX654HDZ	USX654HDZ	ULF054HDZ	USF054HDZ
		ver. 4	ULC654ZL	USC654ZL	ULD654ZL	USD654ZL	ULT654ZL	UST654ZL	ULX654ZL	USX654ZL	ULF054ZL	USF054ZL
	500	ver. 1	ULC655	USC655	ULD655	USD655	ULT655	UST655	ULX655	USX655	ULF055	USF055
		ver. 2	ULC655HDZ	USC655HDZ	ULD655HDZ	USD655HDZ	ULT655HDZ	UST655HDZ	ULX655HDZ	USX655HDZ	ULF055HDZ	USF055HDZ
		ver. 4	ULC655ZL	USC655ZL	ULD655ZL	USD655ZL	ULT655ZL	UST655ZL	ULX655ZL	USX655ZL	ULF055ZL	USF055ZL
	600	ver. 1	ULC656	USC656	ULD656	USD656	ULT656	UST656	ULX656	USX656	ULF056	USF056
		ver. 2	ULC656HDZ	USC656HDZ	ULD656HDZ	USD656HDZ	ULT656HDZ	UST656HDZ	ULX656HDZ	USX656HDZ	ULF056HDZ	USF056HDZ
		ver. 4	ULC656ZL	USC656ZL	ULD656ZL	USD656ZL	ULT656ZL	UST656ZL	ULX656ZL	USX656ZL	ULF056ZL	USF056ZL
	700	ver. 1	ULC657	USC657	ULD657	USD657	ULT657	UST657	ULX657	USX657	ULF057	USF057
		ver. 2	ULC657HDZ	USC657HDZ	ULD657HDZ	USD657HDZ	ULT657HDZ	UST657HDZ	ULX657HDZ	USX657HDZ	ULF057HDZ	USF057HDZ
		ver. 4	ULC657ZL	USC657ZL	ULD657ZL	USD657ZL	ULT657ZL	UST657ZL	ULX657ZL	USX657ZL	ULF057ZL	USF057ZL
	800	ver. 1	ULC658	USC658	ULD658	USD658	ULT658	UST658	ULX658	USX658	ULF058	USF058
		ver. 2	ULC658HDZ	USC658HDZ	ULD658HDZ	USD658HDZ	ULT658HDZ	UST658HDZ	ULX658HDZ	USX658HDZ	ULF058HDZ	USF058HDZ
		ver. 4	ULC658ZL	USC658ZL	ULD658ZL	USD658ZL	ULT658ZL	UST658ZL	ULX658ZL	USX658ZL	ULF058ZL	USF058ZL
	900	ver. 1	ULC659	USC659	ULD659	USD659	ULT659	UST659	ULX659	USX659	ULF059	USF059
		ver. 2	ULC659HDZ	USC659HDZ	ULD659HDZ	USD659HDZ	ULT659HDZ	UST659HDZ	ULX659HDZ	USX659HDZ	ULF059HDZ	USF059HDZ
		ver. 4	ULC659ZL	USC659ZL	ULD659ZL	USD659ZL	ULT659ZL	UST659ZL	ULX659ZL	USX659ZL	ULF059ZL	USF059ZL
	1000	ver. 1	ULC650	USC650	ULD650	USD650	ULT650	UST650	ULX650	USX650	ULF050	USF050
		ver. 2	ULC650HDZ	USC650HDZ	ULD650HDZ	USD650HDZ	ULT650HDZ	UST650HDZ	ULX650HDZ	USX650HDZ	ULF050HDZ	USF050HDZ
		ver. 4	ULC650ZL	USC650ZL	ULD650ZL	USD650ZL	ULT650ZL	UST650ZL	ULX650ZL	USX650ZL	ULF050ZL	USF050ZL

## Covers



Width, mm	Version	Cover with twist lock	Corrugated cover with twist lock*
200	ver. 1	UKS302	UKS312
	ver. 2	UKS302HDZ	–
	ver. 4	UKS302ZL	–
300	ver. 1	UKS303	UKS313
	ver. 2	UKS303HDZ	–
	ver. 4	UKS303ZL	–
400	ver. 1	UKS304	UKS314
	ver. 2	UKS304HDZ	–
	ver. 4	UKS304ZL	–
500	ver. 1	UKS305	UKS315
	ver. 2	UKS305HDZ	–
	ver. 4	UKS305ZL	–
600	ver. 1	UKS306	UKS316
	ver. 2	UKS306HDZ	–
	ver. 4	UKS306ZL	–
700	ver. 1	UKS307	UKS317
	ver. 2	UKS307HDZ	–
	ver. 4	UKS307ZL	–
800	ver. 1	UKS308	UKS318
	ver. 2	UKS308HDZ	–
	ver. 4	UKS308ZL	–
900	ver. 1	UKS309	UKS319
	ver. 2	UKS309HDZ	–
	ver. 4	UKS309ZL	–
1000	ver. 1	UKS300	UKS310
	ver. 2	UKS300HDZ	–
	ver. 4	UKS300ZL	–

\* Material – aluminum



Width, mm	Version	Cover for bend 45°	Cover for bend 90°	Cover for T-branch	Cover for cross-over
200	ver. 1	UKC602	UKD602	UKT602	UKX602
	ver. 2	–	–	–	–
	ver. 4	UKC602ZL	UKD602ZL	UKT602ZL	UKX602ZL
300	ver. 1	UKC603	UKD603	UKT603	UKX603
	ver. 2	–	–	–	–
	ver. 4	UKC603ZL	UKD603ZL	UKT603ZL	UKX603ZL
400	ver. 1	UKC604	UKD604	UKT604	UKX604
	ver. 2	–	–	–	–
	ver. 4	UKC604ZL	UKD604ZL	UKT604ZL	UKX604ZL
500	ver. 1	UKC605	UKD605	UKT605	UKX605
	ver. 2	–	–	–	–
	ver. 4	UKC605ZL	UKD605ZL	UKT605ZL	UKX605ZL
600	ver. 1	UKC606	UKD606	UKT606	UKX606
	ver. 2	–	–	–	–
	ver. 4	UKC606ZL	UKD606ZL	UKT606ZL	UKX606ZL
700	ver. 1	UKC607	UKD607	UKT607	UKX607
	ver. 2	–	–	–	–
	ver. 4	UKC607ZL	UKD607ZL	UKT607ZL	UKX607ZL
800	ver. 1	UKC608	UKD608	UKT608	UKX608
	ver. 2	–	–	–	–
	ver. 4	UKC608ZL	UKD608ZL	UKT608ZL	UKX608ZL
900	ver. 1	UKC609	UKD609	UKT609	UKX609
	ver. 2	–	–	–	–
	ver. 4	UKC609ZL	UKD609ZL	UKT609ZL	UKX609ZL
1000	ver. 1	UKC600	UKD600	UKT600	UKX600
	ver. 2	–	–	–	–
	ver. 4	UKC600ZL	UKD600ZL	UKT600ZL	UKX600ZL

## System accessories 200 mm high

**Versions:**

version 1 – Sendzimir galvanized steel;  
version 2 – post hot-dip galvanized steel;  
version 4 – zinc-lamellar coat.



Height, mm	Width, mm	Version	Straight elements				Perforated straight elements			
			thickness 1,5 mm		thickness 2 mm		thickness 1,5 mm		thickness 2 mm	
			3 m	6 m	3 m	6 m	3 m	6 m	3 m	6 m
200	200	ver. 1	ULM322	ULM622	ULH322	ULH622	USM322	USM622	USH322	USH622
		ver. 2	ULM322HDZ	ULM622HDZ	ULH322HDZ	ULH622HDZ	USM322HDZ	USM622HDZ	USH322HDZ	USH622HDZ
		ver. 4	ULM322ZL	ULM622ZL	ULH322ZL	ULH622ZL	USM322ZL	USM622ZL	USH322ZL	USH622ZL
	300	ver. 1	ULM323	ULM623	ULH323	ULH623	USM323	USM623	USH323	USH623
		ver. 2	ULM323HDZ	ULM623HDZ	ULH323HDZ	ULH623HDZ	USM323HDZ	USM623HDZ	USH323HDZ	USH623HDZ
		ver. 4	ULM323ZL	ULM623ZL	ULH323ZL	ULH623ZL	USM323ZL	USM623ZL	USH323ZL	USH623ZL
	400	ver. 1	ULM324	ULM624	ULH324	ULH624	USM324	USM624	USH324	USH624
		ver. 2	ULM324HDZ	ULM624HDZ	ULH324HDZ	ULH624HDZ	USM324HDZ	USM624HDZ	USH324HDZ	USH624HDZ
		ver. 4	ULM324ZL	ULM624ZL	ULH324ZL	ULH624ZL	USM324ZL	USM624ZL	USH324ZL	USH624ZL
	500	ver. 1	ULM325	ULM625	ULH325	ULH625	USM325	USM625	USH325	USH625
		ver. 2	ULM325HDZ	ULM625HDZ	ULH325HDZ	ULH625HDZ	USM325HDZ	USM625HDZ	USH325HDZ	USH625HDZ
		ver. 4	ULM325ZL	ULM625ZL	ULH325ZL	ULH625ZL	USM325ZL	USM625ZL	USH325ZL	USH625ZL
	600	ver. 1	ULM326	ULM626	ULH326	ULH626	USM326	USM626	USH326	USH626
		ver. 2	ULM326HDZ	ULM626HDZ	ULH326HDZ	ULH626HDZ	USM326HDZ	USM626HDZ	USH326HDZ	USH626HDZ
		ver. 4	ULM326ZL	ULM626ZL	ULH326ZL	ULH626ZL	USM326ZL	USM626ZL	USH326ZL	USH626ZL
	700	ver. 1	ULM327	ULM627	ULH327	ULH627	USM327	USM627	USH327	USH627
		ver. 2	ULM327HDZ	ULM627HDZ	ULH327HDZ	ULH627HDZ	USM327HDZ	USM627HDZ	USH327HDZ	USH627HDZ
		ver. 4	ULM327ZL	ULM627ZL	ULH327ZL	ULH627ZL	USM327ZL	USM627ZL	USH327ZL	USH627ZL
	800	ver. 1	ULM328	ULM628	ULH328	ULH628	USM328	USM628	USH328	USH628
		ver. 2	ULM328HDZ	ULM628HDZ	ULH328HDZ	ULH628HDZ	USM328HDZ	USM628HDZ	USH328HDZ	USH628HDZ
		ver. 4	ULM328ZL	ULM628ZL	ULH328ZL	ULH628ZL	USM328ZL	USM628ZL	USH328ZL	USH628ZL
	900	ver. 1	ULM329	ULM629	ULH329	ULH629	USM329	USM629	USH329	USH629
		ver. 2	ULM329HDZ	ULM629HDZ	ULH329HDZ	ULH629HDZ	USM329HDZ	USM629HDZ	USH329HDZ	USH629HDZ
		ver. 4	ULM329ZL	ULM629ZL	ULH329ZL	ULH629ZL	USM329ZL	USM629ZL	USH329ZL	USH629ZL
	1000	ver. 1	ULM320	ULM620	ULH320	ULH620	USM320	USM620	USH320	USH620
		ver. 2	ULM320HDZ	ULM620HDZ	ULH320HDZ	ULH620HDZ	USM320HDZ	USM620HDZ	USH320HDZ	USH620HDZ
		ver. 4	ULM320ZL	ULM620ZL	ULH320ZL	ULH620ZL	USM320ZL	USM620ZL	USH320ZL	USH620ZL



Height, mm	Width, mm	Version	Bend 45°		Bend 90°		T-branch		Cross-over		Vertical joint	
			ladder	tray	ladder	tray	ladder	tray	ladder	tray	ladder	tray
200	200	ver. 1	ULC622	USC622	ULD622	USD622	ULT622	UST622	ULX622	USX622	ULF022	USF022
		ver. 2	ULC622HDZ	USC622HDZ	ULD622HDZ	USD622HDZ	ULT622HDZ	UST622HDZ	ULX622HDZ	USX622HDZ	ULF022HDZ	USF022HDZ
		ver. 4	ULC622ZL	USC622ZL	ULD622ZL	USD622ZL	ULT622ZL	UST622ZL	ULX622ZL	USX622ZL	ULF022ZL	USF022ZL
	300	ver. 1	ULC623	USC623	ULD623	USD623	ULT623	UST623	ULX623	USX623	ULF023	USF023
		ver. 2	ULC623HDZ	USC623HDZ	ULD623HDZ	USD623HDZ	ULT623HDZ	UST623HDZ	ULX623HDZ	USX623HDZ	ULF023HDZ	USF023HDZ
		ver. 4	ULC623ZL	USC623ZL	ULD623ZL	USD623ZL	ULT623ZL	UST623ZL	ULX623ZL	USX623ZL	ULF023ZL	USF023ZL
	400	ver. 1	ULC624	USC624	ULD624	USD624	ULT624	UST624	ULX624	USX624	ULF024	USF024
		ver. 2	ULC624HDZ	USC624HDZ	ULD624HDZ	USD624HDZ	ULT624HDZ	UST624HDZ	ULX624HDZ	USX624HDZ	ULF024HDZ	USF024HDZ
		ver. 4	ULC624ZL	USC624ZL	ULD624ZL	USD624ZL	ULT624ZL	UST624ZL	ULX624ZL	USX624ZL	ULF024ZL	USF024ZL
	500	ver. 1	ULC625	USC625	ULD625	USD625	ULT625	UST625	ULX625	USX625	ULF025	USF025
		ver. 2	ULC625HDZ	USC625HDZ	ULD625HDZ	USD625HDZ	ULT625HDZ	UST625HDZ	ULX625HDZ	USX625HDZ	ULF025HDZ	USF025HDZ
		ver. 4	ULC625ZL	USC625ZL	ULD625ZL	USD625ZL	ULT625ZL	UST625ZL	ULX625ZL	USX625ZL	ULF025ZL	USF025ZL
	600	ver. 1	ULC626	USC626	ULD626	USD626	ULT626	UST626	ULX626	USX626	ULF026	USF026
		ver. 2	ULC626HDZ	USC626HDZ	ULD626HDZ	USD626HDZ	ULT626HDZ	UST626HDZ	ULX626HDZ	USX626HDZ	ULF026HDZ	USF026HDZ
		ver. 4	ULC626ZL	USC626ZL	ULD626ZL	USD626ZL	ULT626ZL	UST626ZL	ULX626ZL	USX626ZL	ULF026ZL	USF026ZL
	700	ver. 1	ULC627	USC627	ULD627	USD627	ULT627	UST627	ULX627	USX627	ULF027	USF027
		ver. 2	ULC627HDZ	USC627HDZ	ULD627HDZ	USD627HDZ	ULT627HDZ	UST627HDZ	ULX627HDZ	USX627HDZ	ULF027HDZ	USF027HDZ
		ver. 4	ULC627ZL	USC627ZL	ULD627ZL	USD627ZL	ULT627ZL	UST627ZL	ULX627ZL	USX627ZL	ULF027ZL	USF027ZL
	800	ver. 1	ULC628	USC628	ULD628	USD628	ULT628	UST628	ULX628	USX628	ULF028	USF028
		ver. 2	ULC628HDZ	USC628HDZ	ULD628HDZ	USD628HDZ	ULT628HDZ	UST628HDZ	ULX628HDZ	USX628HDZ	ULF028HDZ	USF028HDZ
		ver. 4	ULC628ZL	USC628ZL	ULD628ZL	USD628ZL	ULT628ZL	UST628ZL	ULX628ZL	USX628ZL	ULF028ZL	USF028ZL
	900	ver. 1	ULC629	USC629	ULD629	USD629	ULT629	UST629	ULX629	USX629	ULF029	USF029
		ver. 2	ULC629HDZ	USC629HDZ	ULD629HDZ	USD629HDZ	ULT629HDZ	UST629HDZ	ULX629HDZ	USX629HDZ	ULF029HDZ	USF029HDZ
		ver. 4	ULC629ZL	USC629ZL	ULD629ZL	USD629ZL	ULT629ZL	UST629ZL	ULX629ZL	USX629ZL	ULF029ZL	USF029ZL
	1000	ver. 1	ULC620	USC620	ULD620	USD620	ULT620	UST620	ULX620	USX620	ULF020	USF020
		ver. 2	ULC620HDZ	USC620HDZ	ULD620HDZ	USD620HDZ	ULT620HDZ	UST620HDZ	ULX620HDZ	USX620HDZ	ULF020HDZ	USF020HDZ
		ver. 4	ULC620ZL	USC620ZL	ULD620ZL	USD620ZL	ULT620ZL	UST620ZL	ULX620ZL	USX620ZL	ULF020ZL	USF020ZL



**Covers**


Width, mm	Version	Cover with twist lock	Corrugated cover with twist lock*
200	ver. 1	UKS302	UKS312
	ver. 2	UKS302HDZ	–
	ver. 4	UKS302ZL	–
300	ver. 1	UKS303	UKS313
	ver. 2	UKS303HDZ	–
	ver. 4	UKS303ZL	–
400	ver. 1	UKS304	UKS314
	ver. 2	UKS304HDZ	–
	ver. 4	UKS304ZL	–
500	ver. 1	UKS305	UKS315
	ver. 2	UKS305HDZ	–
	ver. 4	UKS305ZL	–
600	ver. 1	UKS306	UKS316
	ver. 2	UKS306HDZ	–
	ver. 4	UKS306ZL	–
700	ver. 1	UKS307	UKS317
	ver. 2	UKS307HDZ	–
	ver. 4	UKS307ZL	–
800	ver. 1	UKS308	UKS318
	ver. 2	UKS308HDZ	–
	ver. 4	UKS308ZL	–
900	ver. 1	UKS309	UKS319
	ver. 2	UKS309HDZ	–
	ver. 4	UKS309ZL	–
1000	ver. 1	UKS300	UKS310
	ver. 2	UKS300HDZ	–
	ver. 4	UKS300ZL	–

\* Material – aluminum



Width, mm	Version	Cover for bend 45°	Cover for bend 90°	Cover for T-branch	Cover for cross-over
200	ver. 1	UKC602	UKD602	UKT602	UKX602
	ver. 2	–	–	–	–
	ver. 4	UKC602ZL	UKD602ZL	UKT602ZL	UKX602ZL
300	ver. 1	UKC603	UKD603	UKT603	UKX603
	ver. 2	–	–	–	–
	ver. 4	UKC603ZL	UKD603ZL	UKT603ZL	UKX603ZL
400	ver. 1	UKC604	UKD604	UKT604	UKX604
	ver. 2	–	–	–	–
	ver. 4	UKC604ZL	UKD604ZL	UKT604ZL	UKX604ZL
500	ver. 1	UKC605	UKD605	UKT605	UKX605
	ver. 2	–	–	–	–
	ver. 4	UKC605ZL	UKD605ZL	UKT605ZL	UKX605ZL
600	ver. 1	UKC606	UKD606	UKT606	UKX606
	ver. 2	–	–	–	–
	ver. 4	UKC606ZL	UKD606ZL	UKT606ZL	UKX606ZL
700	ver. 1	UKC607	UKD607	UKT607	UKX607
	ver. 2	–	–	–	–
	ver. 4	UKC607ZL	UKD607ZL	UKT607ZL	UKX607ZL
800	ver. 1	UKC608	UKD608	UKT608	UKX608
	ver. 2	–	–	–	–
	ver. 4	UKC608ZL	UKD608ZL	UKT608ZL	UKX608ZL
900	ver. 1	UKC609	UKD609	UKT609	UKX609
	ver. 2	–	–	–	–
	ver. 4	UKC609ZL	UKD609ZL	UKT609ZL	UKX609ZL
1000	ver. 1	UKC600	UKD600	UKT600	UKX600
	ver. 2	–	–	–	–
	ver. 4	UKC600ZL	UKD600ZL	UKT600ZL	UKX600ZL





## **Mounting elements "B5 Combitech"**

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<b>Brackets .....</b>	<b>247</b>
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## Mounting elements "B5 Combitech"

### Description

"B5 Combitech" system of mounting elements is compatible with other systems of DKC trays, as well as "Hercules" lighting and main busbar. Nevertheless the application of "B5 Combitech" system is possible for laying of cable lines and utility systems without metal tray system application. The main distinctive feature of the system is the compatibility of its elements that permits to create and to adapt system to different tasks. Besides that "B5 Combitech" system does not require welding for installation, as the elements are joined with fasteners. All the above mentioned helps to increase considerably the operation life of the system, significantly reduces materials expenses and installation time.

### Area of application

"B5 Combitech" is a universal system of mounting elements and support structures used in different areas: power networks, management systems and telecommunications, pipeline system (air and gas conduit).



Power networks



Control and telecommunication systems  
pipelines

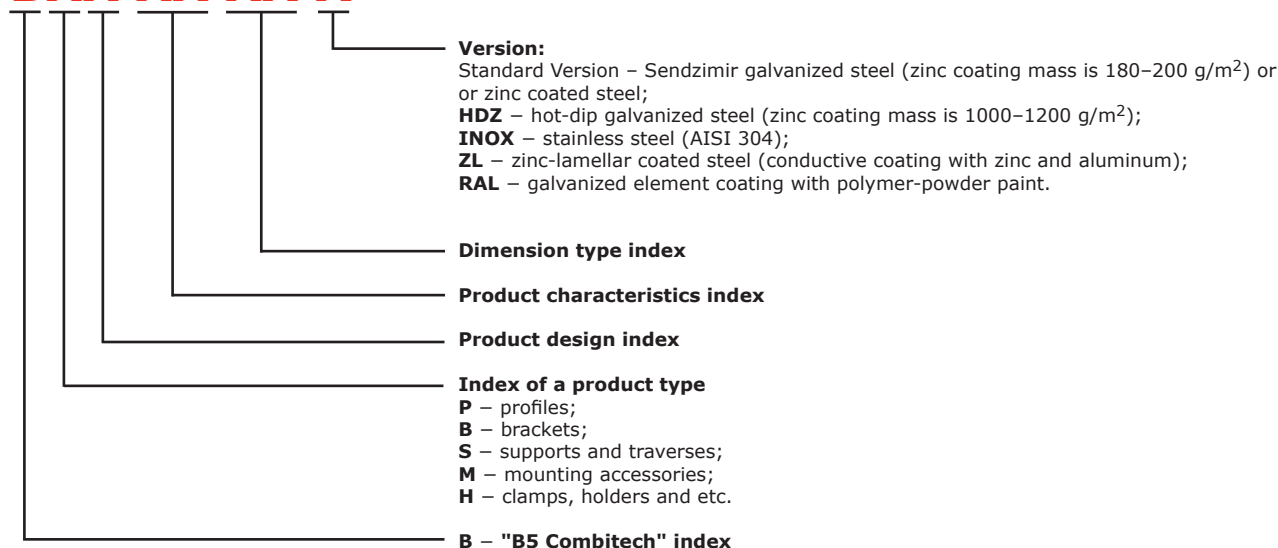


Ventilation and air-conditioning systems

### New coding system

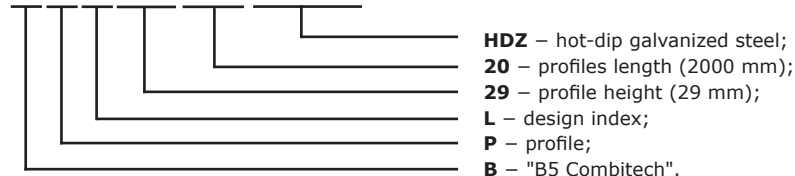
For more comfortable usage we have developed a new system of codes of "B5 Combitech" system. The coding consists of the main indices of the product characteristics according to which you can easily define type of a product and its standard sizes.

**BXX XX XX X**

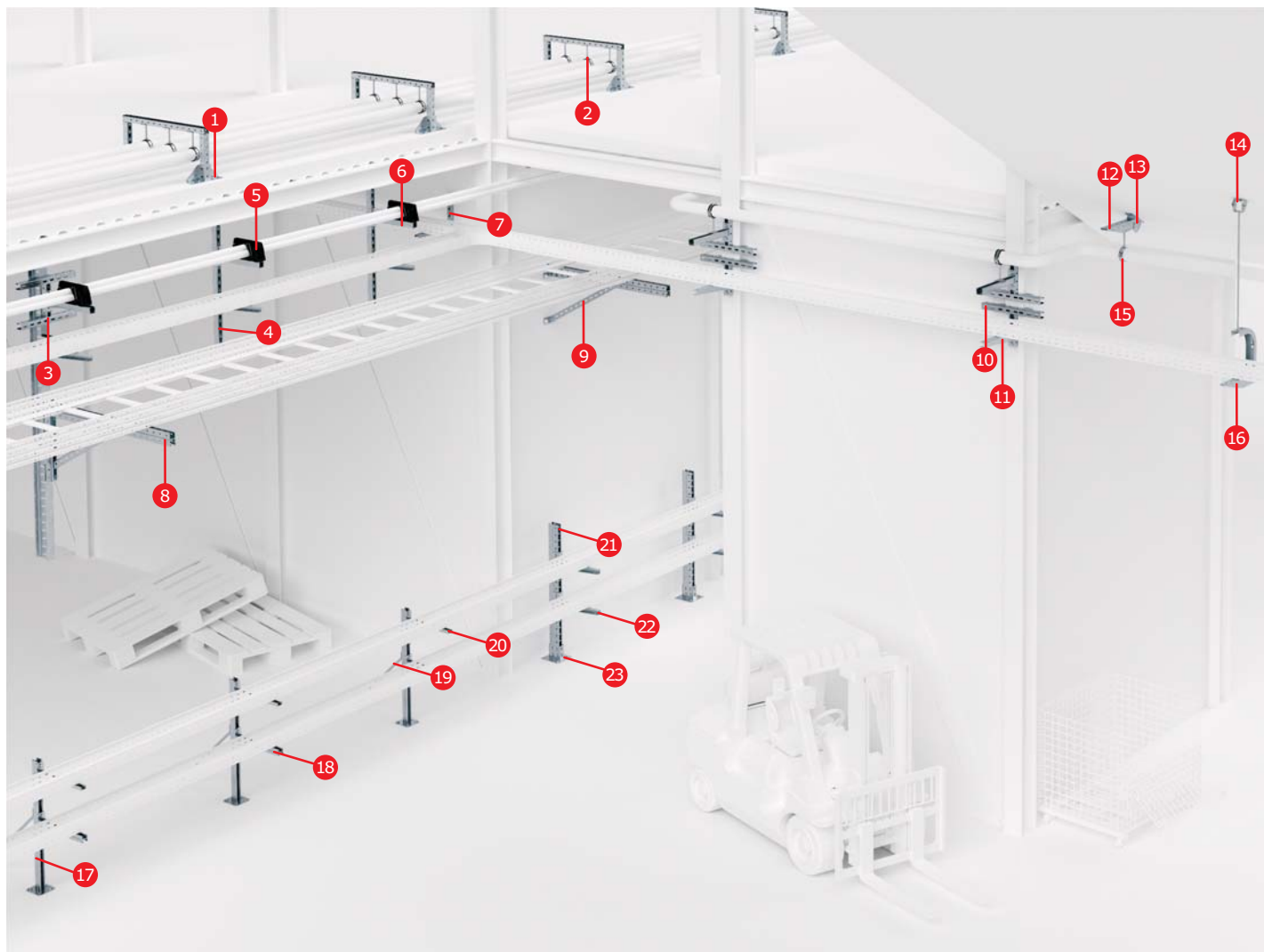


### Examples

**BPL2920HDZ**



## System Components



- |   |  |
|---|--|
| 1 BPM-41 fastening with a site for profile        | 13 BSV-29 fixation to ceiling                      |
| 2 BHT-20 clamp for average loads with insulation  | 14 BSV-10 universal joint                          |
| 3 H-shaped fastening to BMH-40 vertical I-beam    | 15 BHT-30 clamp for heavy loads without insulation |
| 4 BPM-41C-shaped profile                          | 16 BBA-20 ceiling bracket                          |
| 5 BHR-35 cable holder for fastening into triangle | 17 BSD-21 vertical double suspension               |
| 6 BBP-41 single bracket                           | 18 BBD-21 double bracket                           |
| 7 BBC-30 light bracket                            | 19 BMU-60 gibbet for brackets and traverses        |
| 8 BBS-41 bracket for heavy loads, assembled       | 20 BBP-21 single bracket                           |
| 9 BBS-41 bracket for heavy loads, with gibbet     | 21 BPD-41 double C- shaped profile                 |
| 10 T-shaped fastening for BMH-30 vertical I-beam  | 22 BBF-60 easy-fixed bracket for heavy loads       |
| 11 BBH-60 reinforced bracket                      | 23 BSF-82 fixation to ceiling                      |
| 12 BBM-50 bracket                                 |  |



## Profiles

Profiles are designed to mount brackets for cable lines. They are also used to mount frameworks, brackets systems, ventilation ducts and pipes.

### Standard product:

Version 1 - Sendzimir galvanized steel (zinc coating mass is 180–200 g/m<sup>2</sup>) or steel with zinc galvanized coating.

### At customer's request:

Version 2 (HDZ) – post hot-dip galvanized steel (zinc coating mass is 1000–1200 g/m<sup>2</sup>);

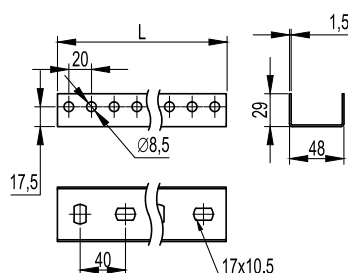
Version 3 (INOX) – stainless steel (AISI 304);

Version 4 (ZL) – post zinc-lamella coated steel.

An appropriate index (HDZ/INOX/ZL) will be added to a product code.

Weight is indicated for standard versions.

## BPL-29 (PSL) profile



### Purpose:

- mounting of BBL-40, BBL-50 and BBM-50 brackets;
- fastening to wall;
- suspension on pins;
- mounting into BSV-29/BSF-21 fastenings.

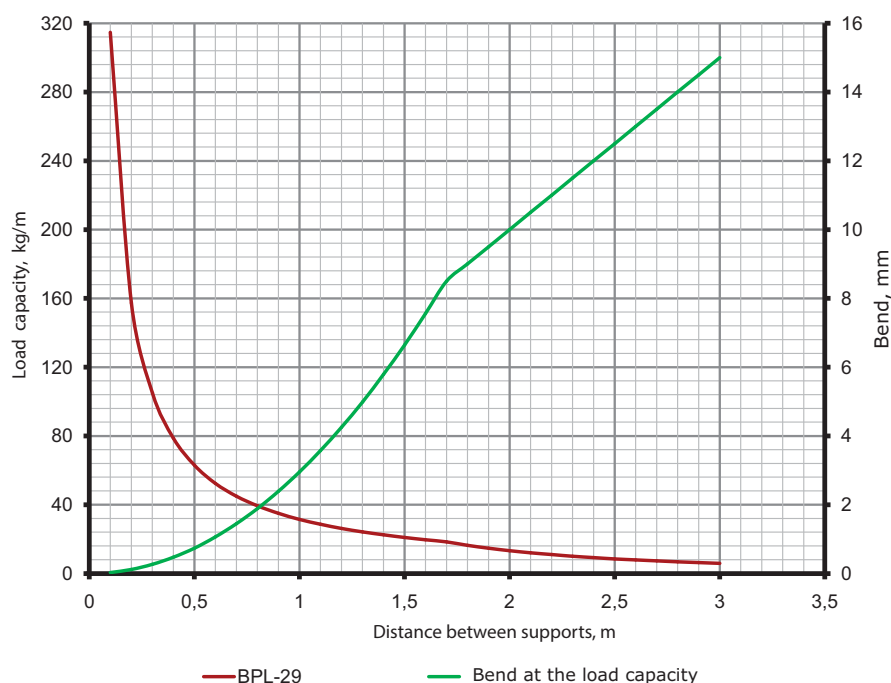
### Characteristics:

- U-shaped profile;
- steel thickness – 1,5 mm.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,31	–	BPL2903	BPL2903HDZ	BPL2903INOX	BPL2903ZL
400	0,42	–	BPL2904	BPL2904HDZ	BPL2904INOX	BPL2904ZL
500	0,52	–	BPL2905	BPL2905HDZ	BPL2905INOX	BPL2905ZL
600	0,63	–	BPL2906	BPL2906HDZ	BPL2906INOX	BPL2906ZL
700	0,73	–	BPL2907	BPL2907HDZ	BPL2907INOX	BPL2907ZL
800	0,82	–	BPL2908	BPL2908HDZ	BPL2908INOX	BPL2908ZL
1000	1,02	–	BPL2910	BPL2910HDZ	BPL2910INOX	BPL2910ZL
1200	1,26	–	BPL2912	BPL2912HDZ	BPL2912INOX	BPL2912ZL
1800	1,87	–	BPL2918	BPL2918HDZ	BPL2918INOX	BPL2918ZL
2000	2,33	34120	BPL2920	BPL2920HDZ	BPL2920INOX	BPL2920ZL
3000	3,50	34128	BPL2930	BPL2930HDZ	BPL2930INOX	BPL2930ZL

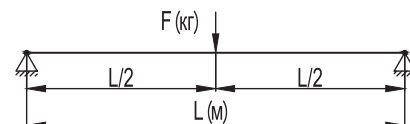
Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram

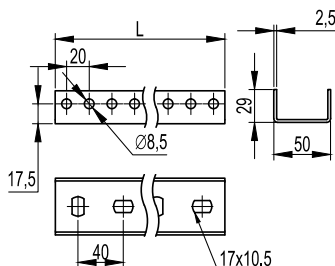


### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



## BPM-29 (PSM) profile



### Purpose:

- mounting BBL-40, BBL-50 and BBM-50;
- fastening to wall;
- suspension on pins;
- mounting into BSV-29/BSF-21 fastenings.

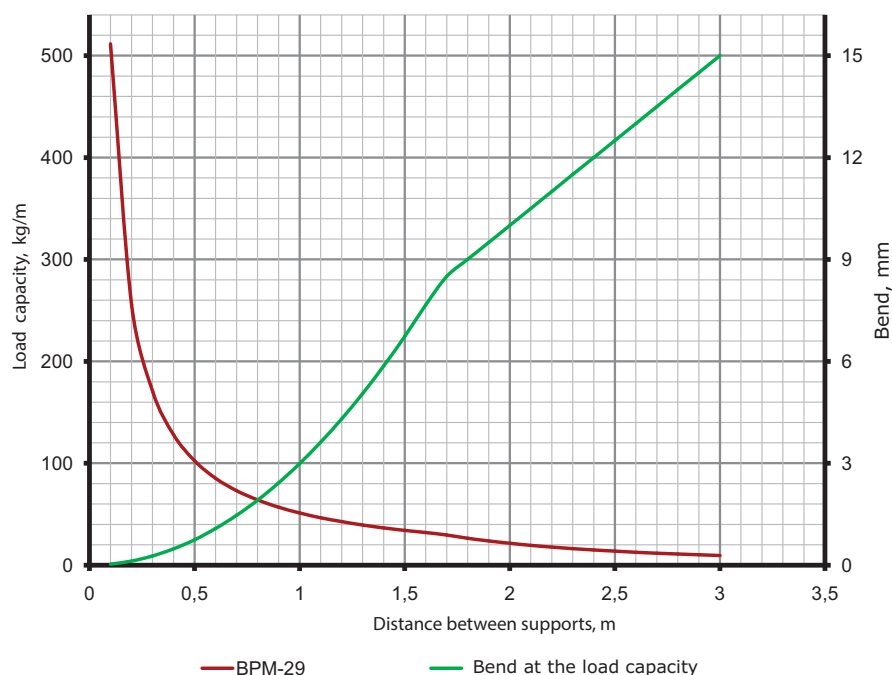
### Characteristics:

- U-shaped profile;
- steel thickness – 2,5 mm.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,50	–	BPM2903	BPM2903HDZ	BPM2903INOX	BPM2903ZL
400	0,67	–	BPM2904	BPM2904HDZ	BPM2904INOX	BPM2904ZL
500	0,84	–	BPM2905	BPM2905HDZ	BPM2905INOX	BPM2905ZL
600	1,00	–	BPM2906	BPM2906HDZ	BPM2906INOX	BPM2906ZL
700	1,17	–	BPM2907	BPM2907HDZ	BPM2907INOX	BPM2907ZL
800	1,34	–	BPM2908	BPM2908HDZ	BPM2908INOX	BPM2908ZL
1000	1,68	–	BPM2910	BPM2910HDZ	BPM2910INOX	BPM2910ZL
1200	2,00	–	BPM2912	BPM2912HDZ	BPM2912INOX	BPM2912ZL
1800	3,01	–	BPM2918	BPM2918HDZ	BPM2918INOX	BPM2918ZL
2000	3,34	34130	BPM2920	BPM2920HDZ	BPM2920INOX	BPM2920ZL
3000	5,01	34181	BPM2930	BPM2930HDZ	BPM2930INOX	BPM2930ZL
6000	9,64	–	BPM2960	–	–	–

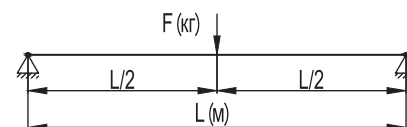
Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram

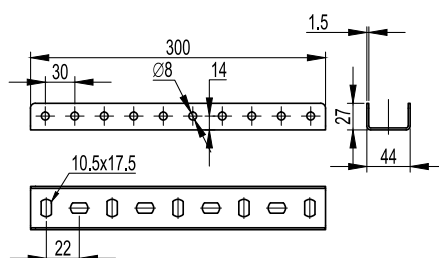


### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



## BPN-29 Connector (for BPL-29/BPM-29/BPF profiles)



### Purpose:

- BPL-29/BPM-29/BPF profile connection.

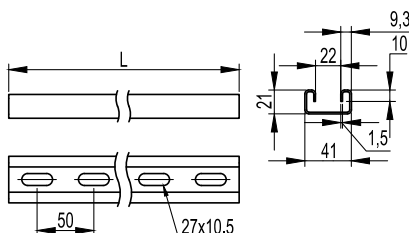
### Characteristics:

- U-shaped profile;
- steel thickness – 1,5 mm;
- used with M8x60 bolt and M8 hex flange nut, 8 pcs. per connection.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,47	34122	BPN2903	BPN2903HDZ	BPN2903INOX	BPN2903ZL



## BPL-21 Profile (DBL)



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41 brackets;
- fastening to wall;
- fixation into support;
- suspension of trays and lighting devices on pins;
- as cable lines for lighting devices.

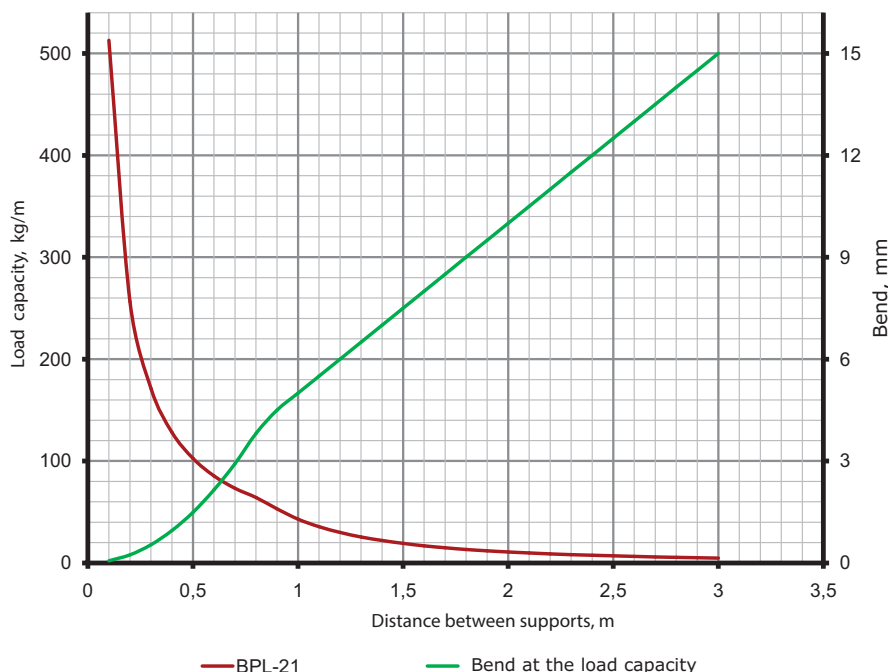
### Characteristics:

- C-shaped profile;
- steel thickness – 1,5 mm.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,33	–	BPL2103	BPL2103HDZ	BPL2103INOX	BPL2103ZL
400	0,44	–	BPL2104	BPL2104HDZ	BPL2104INOX	BPL2104ZL
500	0,55	–	BPL2105	BPL2105HDZ	BPL2105INOX	BPL2105ZL
600	0,66	–	BPL2106	BPL2106HDZ	BPL2106INOX	BPL2106ZL
700	0,77	–	BPL2107	BPL2107HDZ	BPL2107INOX	BPL2107ZL
800	0,88	–	BPL2108	BPL2108HDZ	BPL2108INOX	BPL2108ZL
1000	1,10	–	BPL2110	BPL2110HDZ	BPL2110INOX	BPL2110ZL
1200	1,32	–	BPL2112	BPL2112HDZ	BPL2112INOX	BPL2112ZL
1800	1,98	–	BPL2118	BPL2118HDZ	BPL2118INOX	BPL2118ZL
2000	2,20	–	BPL2120	BPL2120HDZ	BPL2120INOX	BPL2120ZL
3000	3,30	34022	BPL2130	BPL2130HDZ	BPL2130INOX	BPL2130ZL

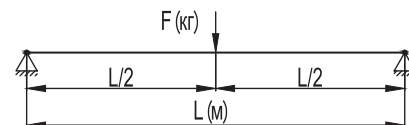
Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram

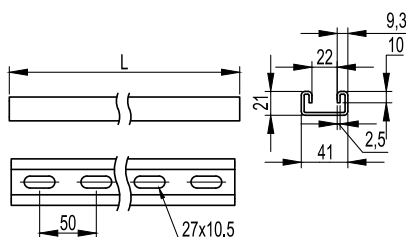


### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



## BPM-21 profile (DBM)



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- fastening to wall;
- fixation into support;
- suspension of trays and lighting devices on pins;
- as cable lines for lighting devices.

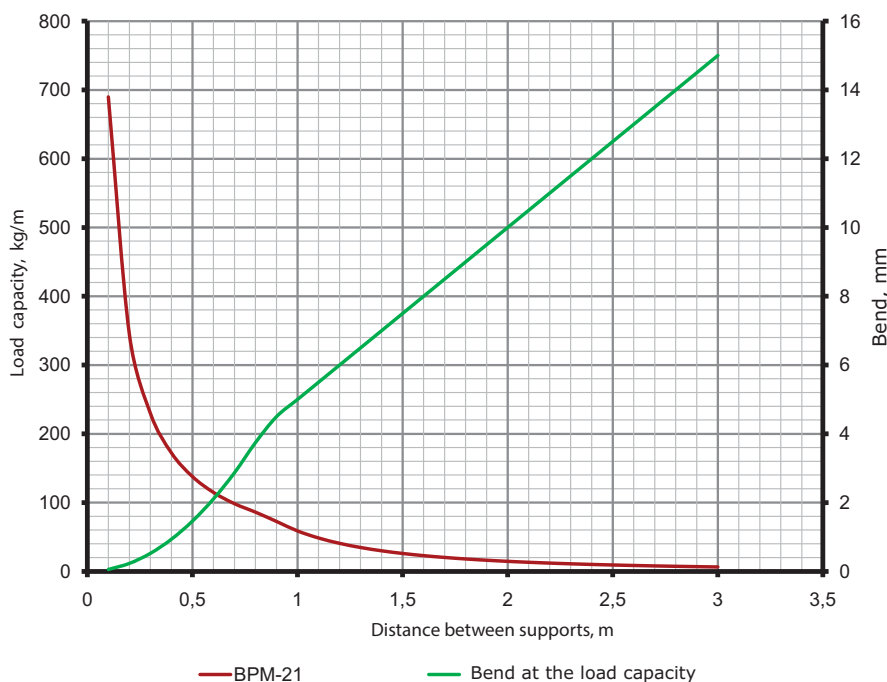
### Characteristics:

- C-shaped profile;
- steel thickness – 2,5 mm.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,52	–	BPM2103	BPM2103HDZ	BPM2103INOX	BPM2103ZL
400	0,70	–	BPM2104	BPM2104HDZ	BPM2104INOX	BPM2104ZL
500	0,87	–	BPM2105	BPM2105HDZ	BPM2105INOX	BPM2105ZL
600	1,04	–	BPM2106	BPM2106HDZ	BPM2106INOX	BPM2106ZL
700	1,22	–	BPM2107	BPM2107HDZ	BPM2107INOX	BPM2107ZL
800	1,39	–	BPM2108	BPM2108HDZ	BPM2108INOX	BPM2108ZL
1000	1,74	–	BPM2110	BPM2110HDZ	BPM2110INOX	BPM2110ZL
1200	2,09	–	BPM2112	BPM2112HDZ	BPM2112INOX	BPM2112ZL
1800	3,13	–	BPM2118	BPM2118HDZ	BPM2118INOX	BPM2118ZL
2000	3,48	–	BPM2120	BPM2120HDZ	BPM2120INOX	BPM2120ZL
3000	5,22	34023	BPM2130	BPM2130HDZ	BPM2130INOX	BPM2130ZL
5000	8,7	–	BPM2150	–	–	–
6000	10,44	–	BPM2160	–	–	–

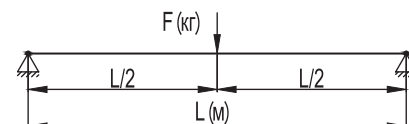
Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram



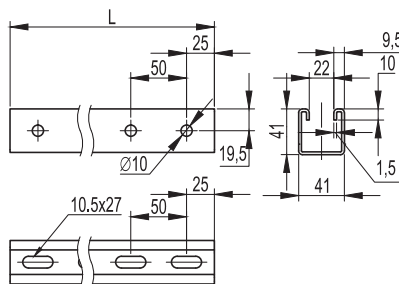
### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



Recommended kit to fix the brackets to BPL-21 and BPM-21 profiles		
Code	Description	Quantity, pcs.
CM041030	M10x30 screw	2
CM101000	Anti-rotation M10 nut	2

## BPL-41 profile



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- fastening to wall;
- fixation into support;
- suspension of trays and lighting devices on pins;
- as cable lines for lighting devices.

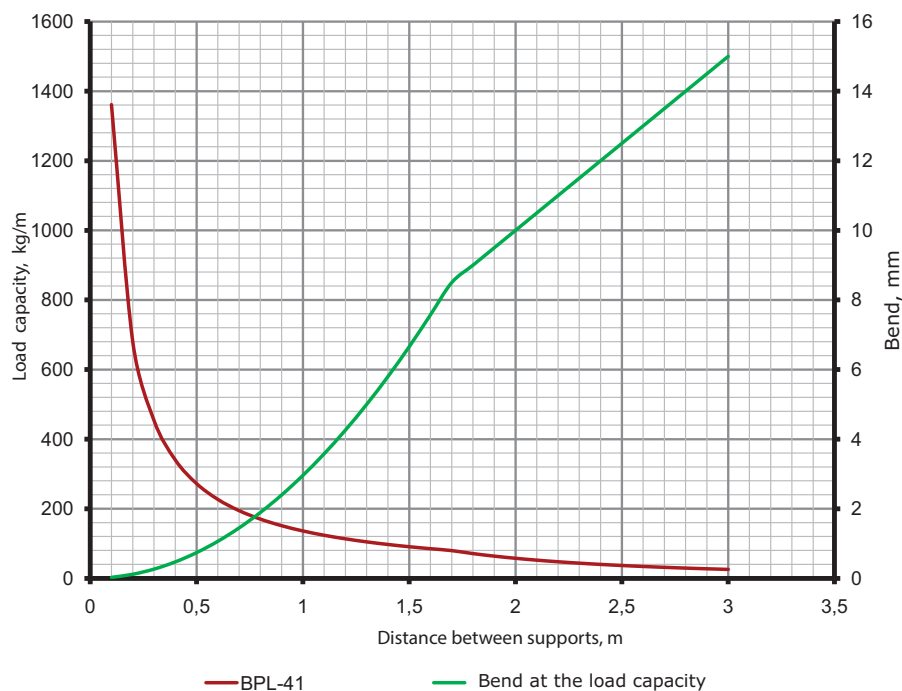
### Characteristics:

- C-shaped profile;
- steel thickness – 1,5 mm.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,45	–	BPL4103	BPL4103HDZ	BPL4103INOX	BPL4103ZL
400	0,60	–	BPL4104	BPL4104HDZ	BPL4104INOX	BPL4104ZL
500	0,75	–	BPL4105	BPL4105HDZ	BPL4105INOX	BPL4105ZL
600	0,90	–	BPL4106	BPL4106HDZ	BPL4106INOX	BPL4106ZL
700	1,05	–	BPL4107	BPL4107HDZ	BPL4107INOX	BPL4107ZL
800	1,20	–	BPL4108	BPL4108HDZ	BPL4108INOX	BPL4108ZL
1000	1,50	–	BPL4110	BPL4110HDZ	BPL4110INOX	BPL4110ZL
1200	1,80	–	BPL4112	BPL4112HDZ	BPL4112INOX	BPL4112ZL
1800	2,70	–	BPL4118	BPL4118HDZ	BPL4118INOX	BPL4118ZL
2000	3,00	–	BPL4120	BPL4120HDZ	BPL4120INOX	BPL4120ZL
3000	4,50	34021	BPL4130	BPL4130HDZ	BPL4130INOX	BPL4130ZL
6000	12	–	–	BPL4160HDZ	–	–

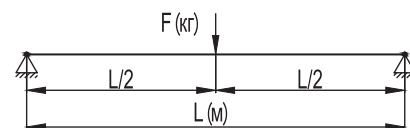
Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram

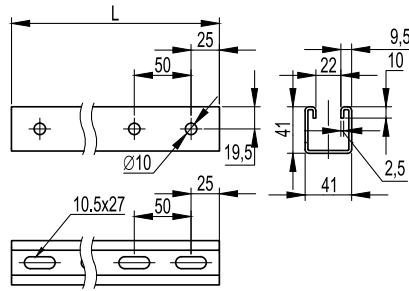


### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f(mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



## BPM-41 profile



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- fastening to wall;
- fixation into support;
- suspension of trays and lighting devices on pins;
- as cable lines for lighting devices.

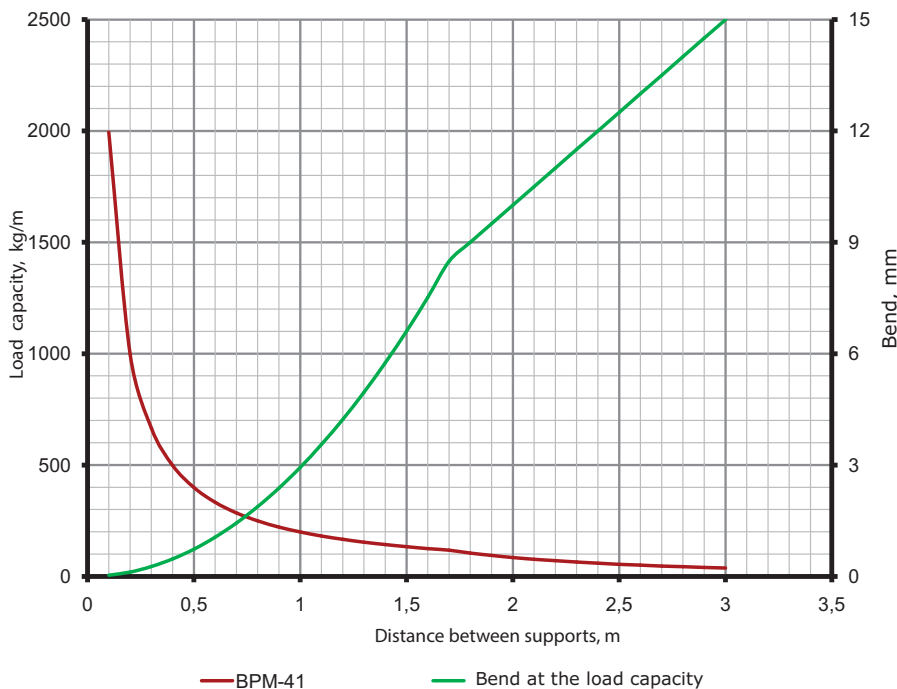
### Characteristics:

- C-shaped profile;
- steel thickness – 2,5 mm.

Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	0,76	–	BPM4103	BPM4103HDZ	BPM4103INOX	BPM4103ZL
400	1,01	–	BPM4104	BPM4104HDZ	BPM4104INOX	BPM4104ZL
500	1,26	–	BPM4105	BPM4105HDZ	BPM4105INOX	BPM4105ZL
600	1,51	–	BPM4106	BPM4106HDZ	BPM4106INOX	BPM4106ZL
700	1,76	–	BPM4107	BPM4107HDZ	BPM4107INOX	BPM4107ZL
800	2,02	–	BPM4108	BPM4108HDZ	BPM4108INOX	BPM4108ZL
1000	2,52	–	BPM4110	BPM4110HDZ	BPM4110INOX	BPM4110ZL
1200	3,02	–	BPM4112	BPM4112HDZ	BPM4112INOX	BPM4112ZL
1800	4,54	–	BPM4118	BPM4118HDZ	BPM4118INOX	BPM4118ZL
2000	5,04	–	BPM4120	BPM4120HDZ	BPM4120INOX	BPM4120ZL
3000	7,56	34024	BPM4130	BPM4130HDZ	BPM4130INOX	BPM4130ZL
6000	15,12	–	BPM4160	BPM4160HDZ	–	–

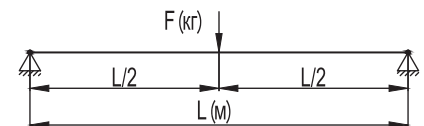
Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram



### Profile calculation:

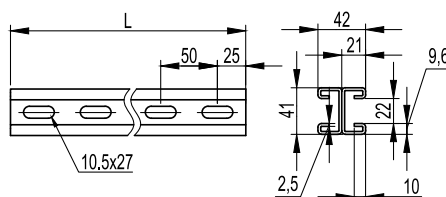
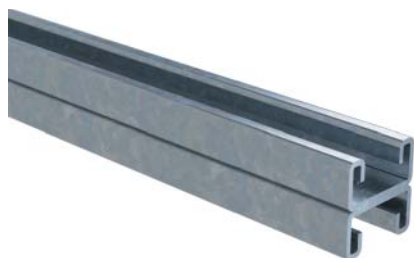
- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



### Recommended kit to fix the brackets to BPL-41 and BPM-41 profile

Code	Description	Quantity, pcs.
CM0401030	M10x30 screw	2
CM101000	Anti-rotation M10 nut	2

## Double BPD-21profile



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- fixation into support;
- suspension of trays and lighting devices on pins;
- as cable lines for lighting devices.

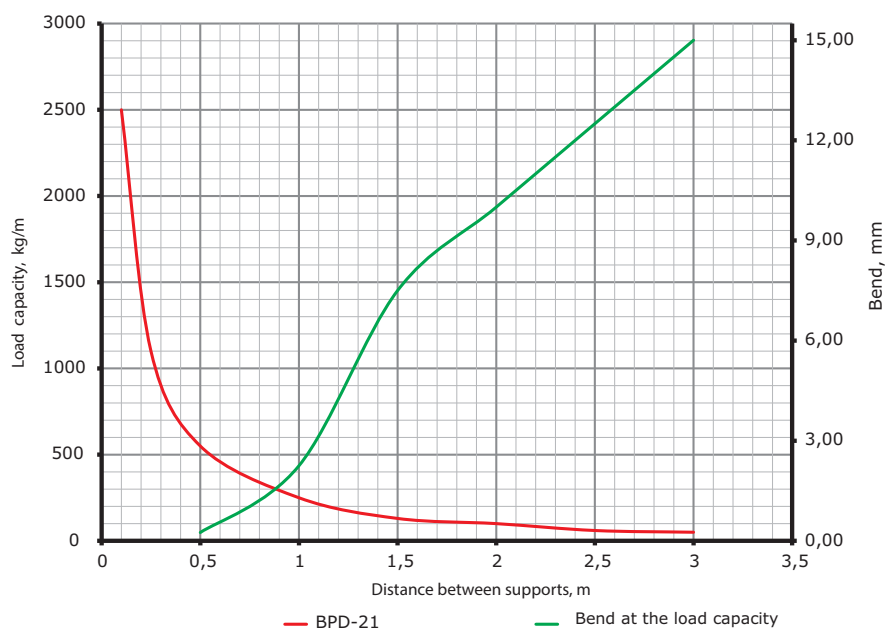
### Characteristics:

- C-shaped profile;
- steel thickness – 2,5 mm.

Length L, mm	Weight, kg	Code, ver. 2	Code, ver. 3
300	1,10	BPD2103HDZ	–
400	1,46	BPD2104HDZ	–
500	1,83	BPD2105HDZ	–
600	2,20	BPD2106HDZ	–
700	2,56	BPD2107HDZ	–
800	2,93	BPD2108HDZ	–
1000	3,66	BPD2110HDZ	–
1200	4,39	BPD2112HDZ	–
1800	6,59	BPD2118HDZ	–
2000	7,32	BPD2120HDZ	BPD2120INOX
3000	10,98	BPD2130HDZ	BPD2130INOX

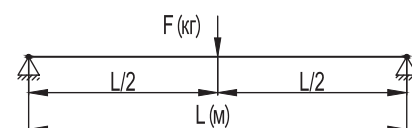
Besides standard lengths in version 2 it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram

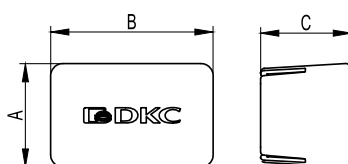
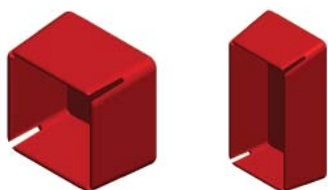


### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165$  MPa – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to L/200 are exceeded.



## Front end caps for profiles



### Purpose:

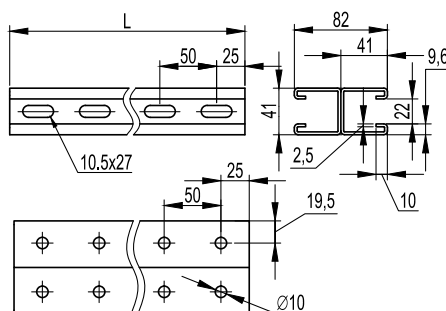
- prevents from sharp ends of sections and brackets when mounting the lines; aesthetic purposes.

### Characteristics:

- material – polyethylene;
- color: red RAL 3020.

Description	A	B	Wich	Weight, kg	Old code	New code
For BPL-21 and BPM-21 profiles	25	44	60	0,01	LS0021	BPO4121
For BPL-29, BPM-29 and BPF-29 profiles	34	54	60	0,01	LS0030	BPO5029
For BPL-41, BPM-41 and BPD-21 profiles	44	44	60	0,01	LS0041	BPO4141
For BPD-41 profile	44	87	60	0,01	LS0082	BPO4182

## BPD-41 profile



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- fixation into support;
- suspension of trays and lighting devices on pins;
- as cable lines for lighting devices.

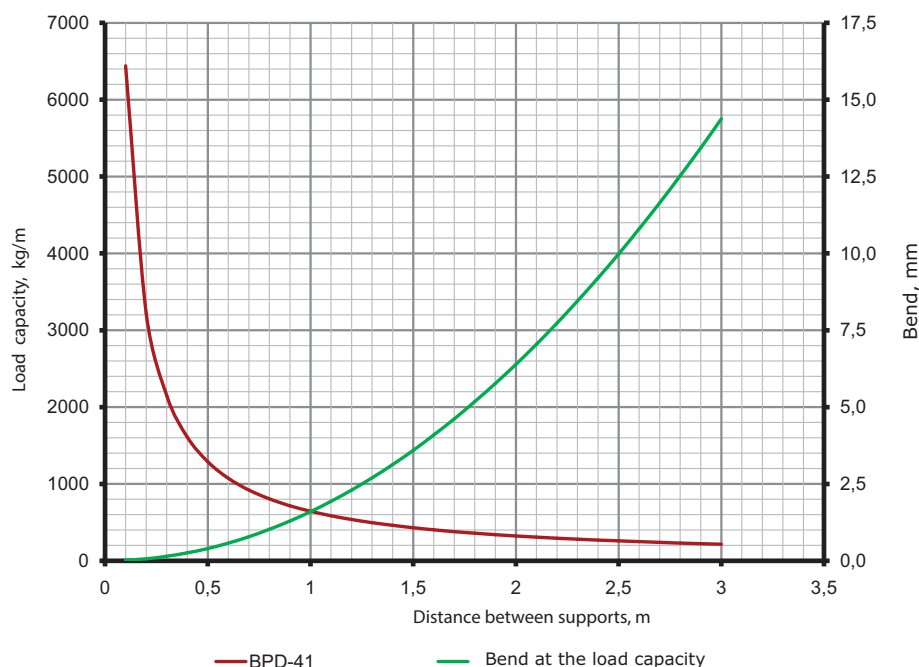
### Characteristics:

- C-shaped profile;
- steel thickness – 2,5 mm.

Length L, mm	Weight, kg	Code, ver. 2	Code, ver. 3
300	1,51	BPD4103HDZ	–
400	2,02	BPD4104HDZ	–
500	2,52	BPD4105HDZ	–
600	3,02	BPD4106HDZ	–
700	3,53	BPD4107HDZ	–
800	4,03	BPD4108HDZ	–
1000	5,04	BPD4110HDZ	–
1200	6,05	BPD4112HDZ	–
1800	9,07	BPD4118HDZ	–
2000	10,08	BPD4120HDZ	BPD4120INOX
3000	15,12	BPD4130HDZ	BPD4130INOX
6000	31,8	BPD4160HDZ	–

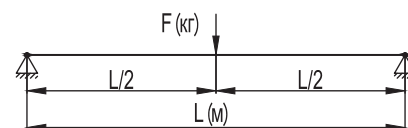
Besides standard lengths in version 2 it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

## Load diagram



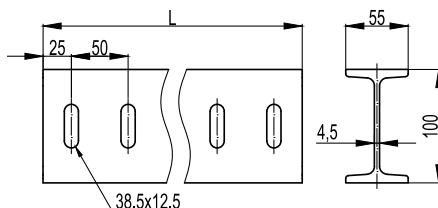
### Profile calculation:

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f(mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



Recommended kit to fi x the brackets to BPD-21 and BPD-41 profile		
Code	Description	Quantity, pcs.
CM041030	M10x30 nut	2
CM101000	Anti-rotation M10 nut	2

## I-shaped BPM-50 profile


**Purpose:**

- mounting BBD-41, BBF-60;
- fixation into support for heavy load;
- tray suspension.

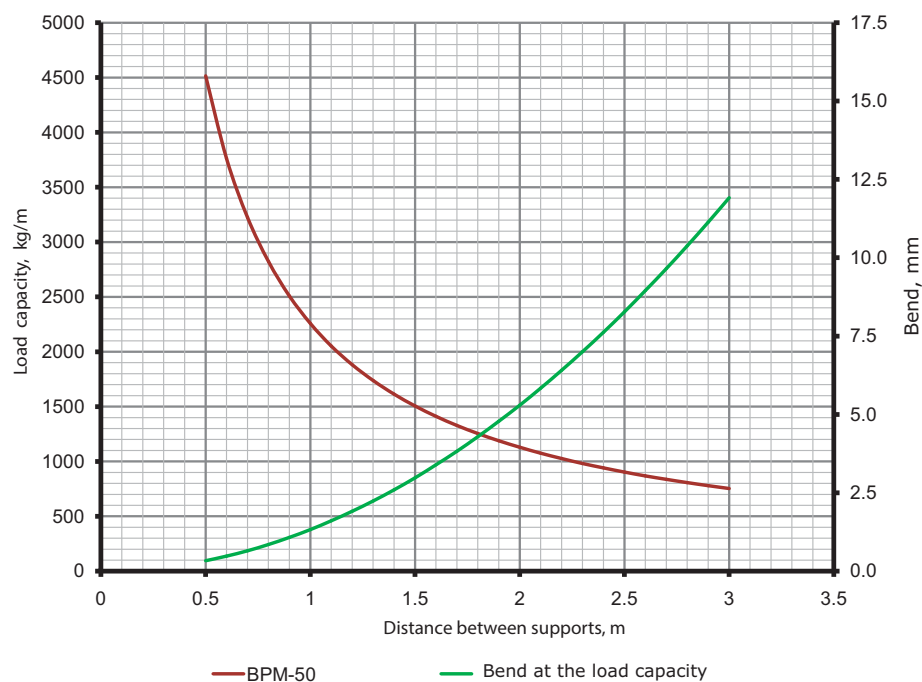
**Characteristics:**

- I-shaped profile.

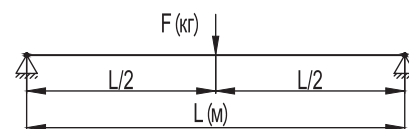
Length L, mm	Weight, kg	Code, ver. 2
300	2,83	BPM5003HDZ
400	3,77	BPM5004HDZ
500	4,71	BPM5005HDZ
600	5,66	BPM5006HDZ
700	6,60	BPM5007HDZ
800	7,54	BPM5008HDZ
1000	9,43	BPM5010HDZ
1200	11,31	BPM5012HDZ
1800	16,97	BPM5018HDZ
2000	18,86	BPM5020HDZ
3000	28,29	BPM5030HDZ
6000	56,57	BPM5060HDZ

Besides standard lengths it's possible to manufacture profiles of any length in the range from 300 to 3000 mm with a step of 100 mm

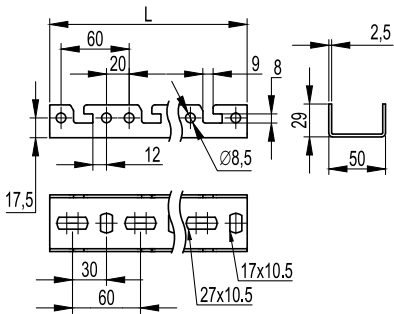
## Load diagram


**Profile calculation:**

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



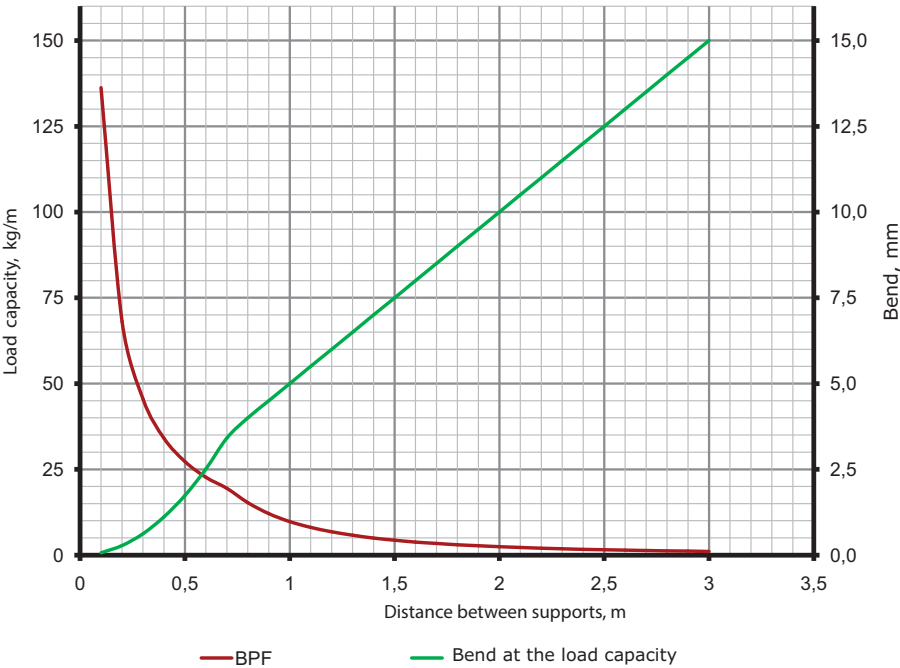
Easy fixed BPF profile



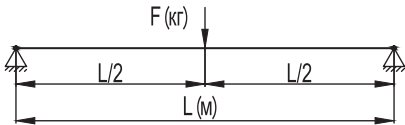
- Purpose:**
- mounting BBF easy fixed brackets;
  - fastening to wall;
  - mounting into BSV-29/BSF-21 fastenings.
- Characteristics:**
- U-shaped profile;
  - steel thickness – 2,5 mm.

Length L, mm	Weight, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 4
400	0,65	BPF2904	BPF2904HDZ	BPF2904INOX	BPF2904ZL
600	0,92	BPF2906	BPF2906HDZ	BPF2906INOX	BPF2906ZL
800	1,30	BPF2908	BPF2908HDZ	BPF2908INOX	BPF2908ZL
1000	1,62	BPF2910	BPF2910HDZ	BPF2910INOX	BPF2910ZL
1200	1,84	BPF2912	BPF2912HDZ	BPF2912INOX	BPF2912ZL
1800	2,92	BPF2918	BPF2918HDZ	BPF2918INOX	BPF2918ZL
2000	3,24	BPF2920	BPF2920HDZ	BPF2920INOX	BPF2920ZL
3000	4,86	BPF2930	BPF2930HDZ	BPF2930INOX	BPF2930ZL

Load diagram

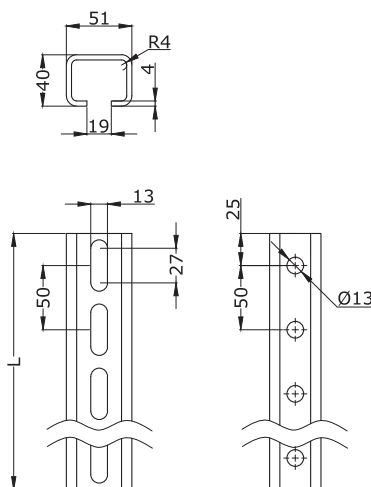


- Profile calculation:**
- for versions 1, 2 and 4;
  - tests are performed according to GOST P52868;
  - load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
  - $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
  - F (kg) load and f(mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.





## BPM-51 profile


**Purpose:**

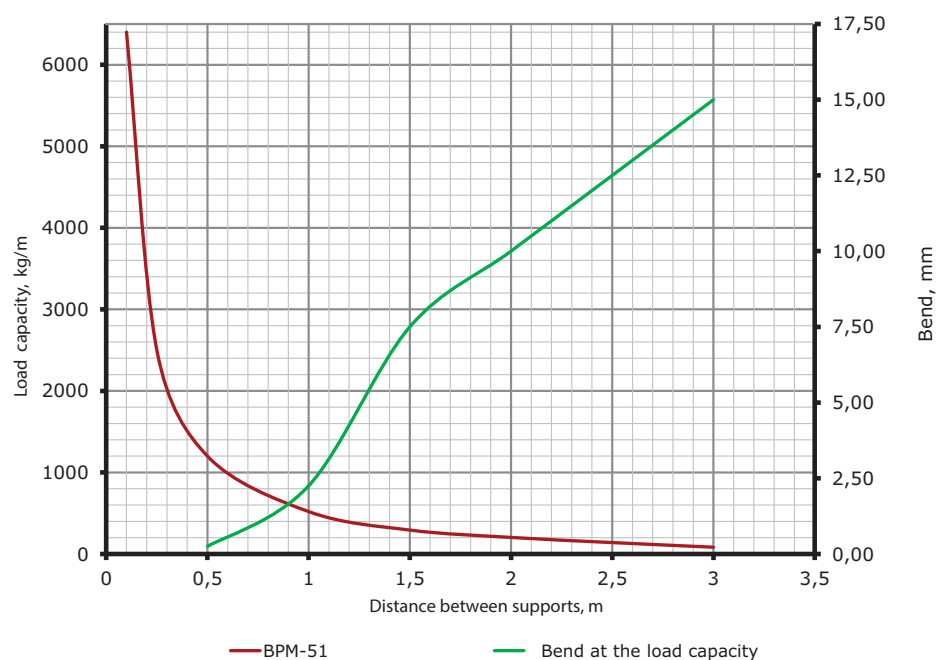
- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- welding to passages and bearing constructions.

**Characteristics:**

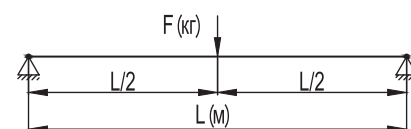
- C-shaped profile;
- thickness – 4 mm.

Length L, mm	Weight, kg	Code, ver. 2
800	3,52	BPM5108HDZ
1000	4,40	BPM5110HDZ
1200	5,28	BPM5112HDZ
1800	7,92	BPM5118HDZ
2000	8,80	BPM5120HDZ
3000	13,20	BPM5130HDZ

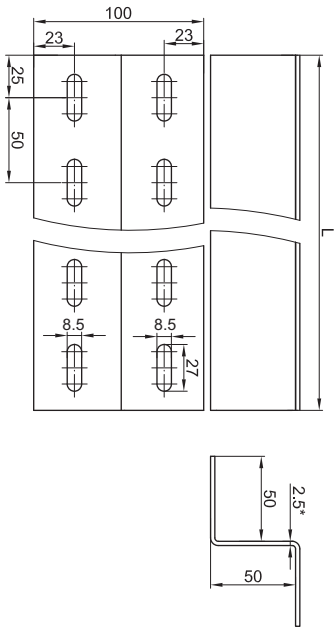
## Load diagram


**Profile calculation:**

- for versions 1, 2 and 4;
- tests are performed according to GOST P52868;
- load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
- $[\sigma] = 165 \text{ MPa}$  – admissible stress for the coldworked steel considering the partial safety factor for material strength;
- F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



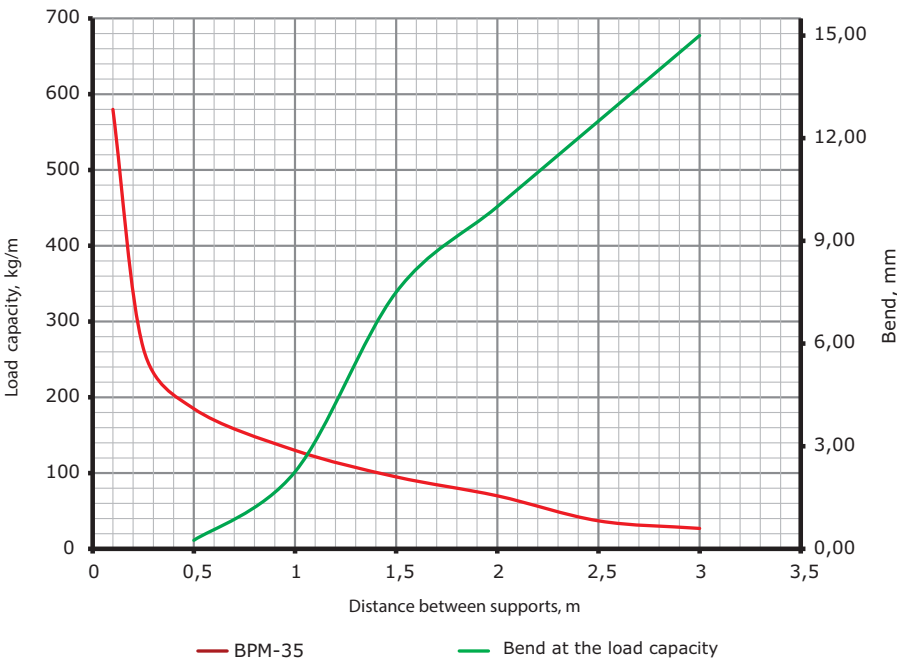
Z-shaped BPM-35 profile



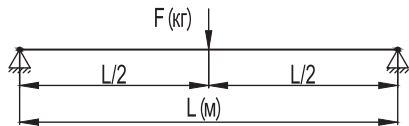
- Purpose:**
- mounting of vertical cable lines.
- Characteristics:**
- Z-shaped profile;
  - thickness – 2,5 mm.

Length L, mm	Weight, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 4
1000	2,65	BPM3510	BPM3510HDZ	BPM3510INOX	BPM3510ZL
2000	5,3	BPM3520	BPM3520HDZ	BPM3520INOX	BPM3520ZL
3000	7,95	BPM3530	BPM3530HDZ	BPM3530INOX	BPM3530ZL

Load diagram



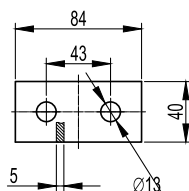
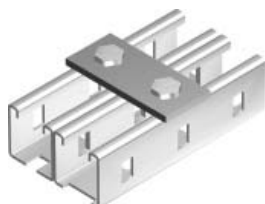
- Profile calculation:**
- for versions 1, 2 and 4;
  - tests are performed according to GOST P52868;
  - load chart, hinge mounted profile with L (mm) length and F (kg) load applied at its center;
  - $[\sigma]=165$  MPa – admissible stress for the coldworked steel considering the partial safety factor for material strength;
  - F (kg) load and f (mm) bend are calculated provided that neither steel load capacity  $[\sigma]$  nor maximum bend equal to  $L/200$  are exceeded.



## Connection elements

Used for constructions together with C-shaped profiles: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.  
Nuts for profile suspension and screws from "M5 Combitech" range are applied for fastening.

### BMD-10 connection plate with 2 holes, length 90 mm


**Purpose:**

- to create complex structures on base of C-shaped profiles.

**Characteristics:**

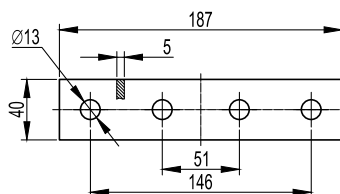
- plate thickness – 5 mm.

**Note:**

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21B, PD-41.

Weight, kg	Old code	Code, ver. 2
0,17	34002HDZ	BMD1011HDZ

### BMD-10 connection plate with 4 holes, length 190 mm


**Purpose:**

- to create complex structures on base of C-shaped profiles.

**Characteristics:**

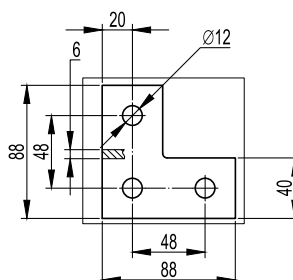
- plate thickness – 5 mm.

**Note:**

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21B, PD-41.

Weight, kg	Old code	Code, ver. 2
0,35	34004HDZ	BMD1012HDZ

### BMD-10 L-type connection plate


**Purpose:**

- to create complex structures on base of C-shaped profiles.

**Characteristics:**

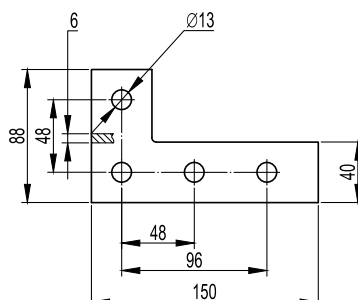
- plate thickness – 6 mm.

**Note:**

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21B, PD-41.

Weight, kg	Old code	Code, ver. 2
0,25	34007HDZ	BMD1021HDZ

### BMD-10 L-type connection plate (long)


**Purpose:**

- to create complex structures on base of C-shaped profiles.

**Characteristics:**

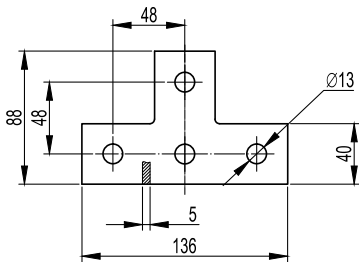
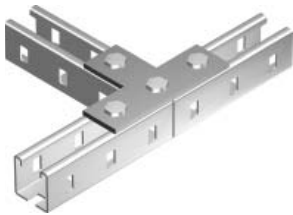
- plate thickness – 6 mm.

**Note:**

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21B, PD-41.

Weight, kg	Old code	Code, ver. 2
0,33	34008HDZ	BMD1022HDZ

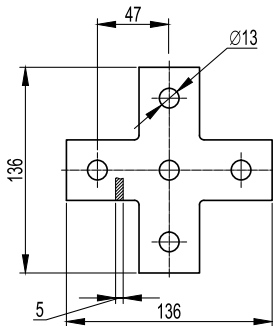
**BMD-10 T-shaped connection plate**



- Purpose:**
- to create complex structures on base of C-shaped profiles.
- Characteristics:**
- plate thickness – 5 mm.
- Note:**
- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Old code	Code, ver. 2
0,33	34009HDZ	BMD1031HDZ

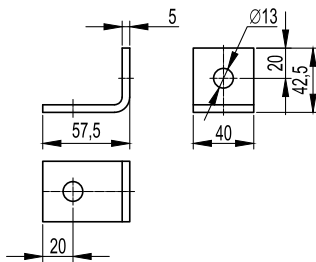
**BMD-10 X-shaped connection plate**



- Purpose:**
- to create complex structures on base of C-shaped profiles.
- Characteristics:**
- plate thickness – 5 mm.
- Note:**
- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Old code	Code, ver. 2
0,41	34010HDZ	BMD1041HDZ

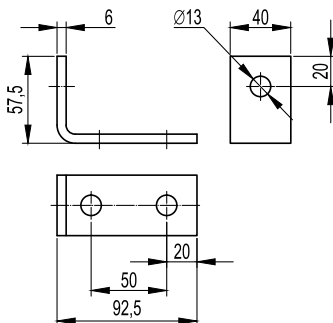
**BMC-10 single fixing angle**



- Purpose:**
- to create complex structures on base of C-shaped profiles.
- Characteristics:**
- plate thickness – 5 mm.
- Note:**
- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Old code	Code, ver. 2
0,16	34011HDZ	BMC1011HDZ

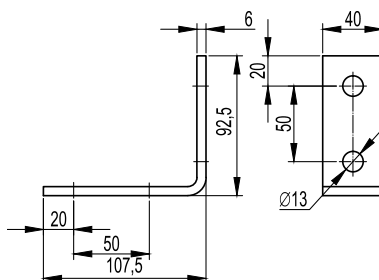
**BMC-10 single angle (long), 92 mm**



- Purpose:**
- to create complex structures on base of C-shaped profiles.
- Characteristics:**
- plate thickness – 6 mm.
- Note:**
- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Old code	Code, ver. 2
0,25	34013HDZ	BMC1012HDZ

## BMC-10 double fixing angle



### Purpose:

- to create complex structures on base of C-shaped profiles.

### Characteristics:

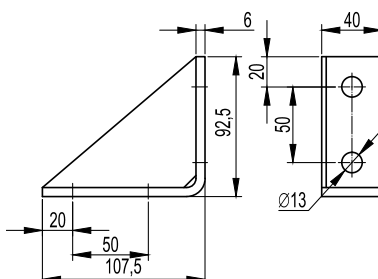
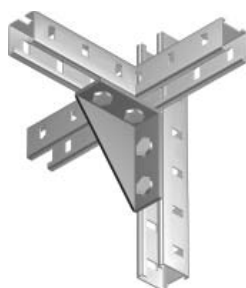
- plate thickness – 6 mm.

### Note:

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Old code	Code, ver. 2
0,33	34014HDZ	BMC1021HDZ

## BMC-10 double reinforced angle (left)



### Purpose:

- to create complex structures on base of C-shaped profiles.

### Characteristics:

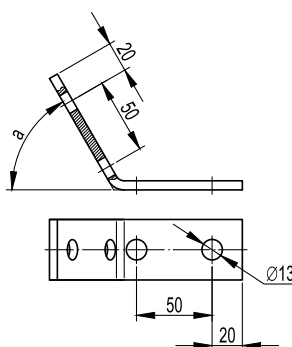
- plate thickness – 6 mm.

### Note:

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Old code	Code, ver. 2
0,42	34015HDZ	BMC1022HDZ

## BMC-10 double fixing angle



### Purpose:

- to create complex structures on base of C-shaped profiles.

### Characteristics:

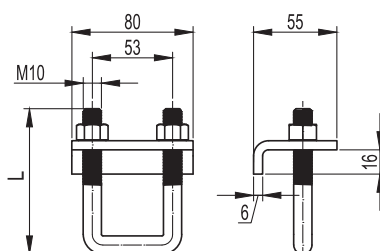
- plate thickness – 6 mm.

### Note:

- compatible with: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Angle a, °	Code, ver. 2
0,33	30	BMC1023HDZ
0,33	45	BMC1024HDZ
0,33	60	BMC1026HDZ

## BMH-10 fastener to beams



### Purpose:

- fixation of section to double-tee beam without drilling and welding.

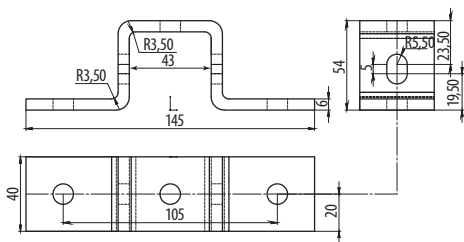
### Note:

- compatible with C-shaped profile: BPL-41, BPM-41, BPD-21 and BPD-41.

Load, kg	Height L, mm	Weight, kg	Code, ver. 2
750*	96	0,6	BMH1010HDZ
600*	120	0,8	BMH2010HDZ

\* Maximum load for two fasteners

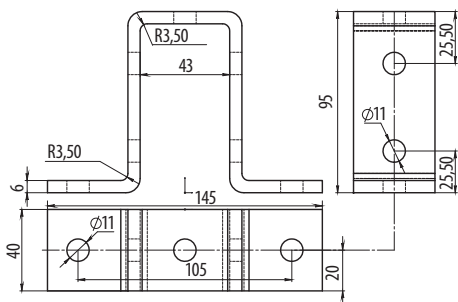
BMD-10 wall fastening to C-shaped profile



**Purpose:**  
• BPL-41,BPM-41, BPD-21 fastening to bearing structures with welding.

Weight, kg	Code, ver. 2
0,37	BMD1051HDZ

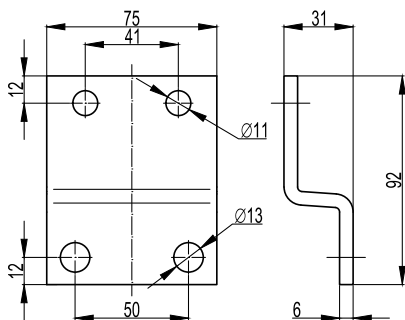
BMD-10 wall fastening to double C-shaped profile



**Purpose:**  
• BPD-41 fastening to bearing structures with welding.

Weight, kg	Code, ver. 2
0,49	BMD1052HDZ

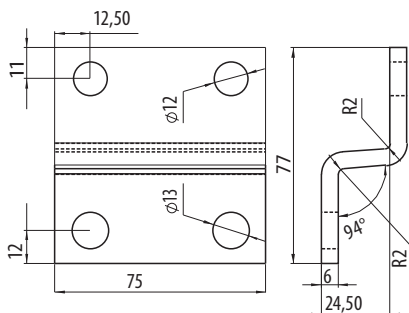
Plate for BBD41 brackets fastening to I-shaped profile



**Purpose:**  
• mounting of BBD-41 bracket to BPM-50 profile.

Weight, kg	Code, ver. 2
0,60	BMD2001HDZ

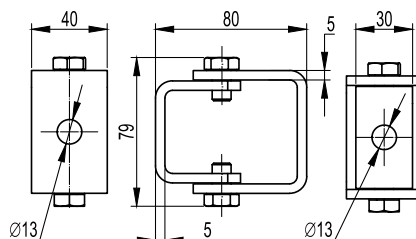
Plate for BBF60 brackets fastening to I-shape profile



**Purpose:**  
• mounting of BBF-60 bracket to BPM-50 profile.

Weight, kg	Code, ver. 2
0,32	BMD2002HDZ

## BSV-10 universal hinge



### Purpose:

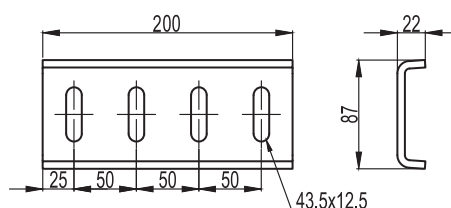
- installation of BHR polyamide holders on brackets at an optional angle; together with threaded pin can be used in spacer.

### Note:

- two holes for M12 metalware.

Weight, kg	Code, ver. 2
0,20	BSV1012

## Plate for I-shaped profiles BPM-50 butt connection



### Purpose:

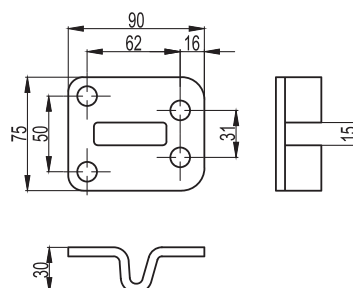
- butt connection of I-shaped profiles BPM-50.

### Characteristics:

- thickness – 6 mm.

Weight, kg	Code, ver. 2
0,95	BMD2011HDZ

## Plate for T-connection of I-shaped profiles BPM-50



### Purpose:

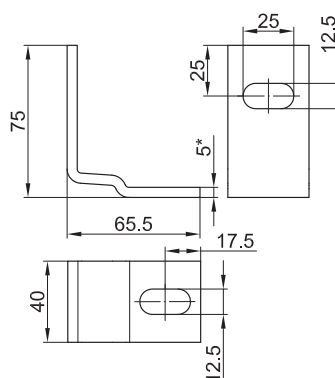
- connection of I-shaped profiles BPM-50 at an angle of 90°.

### Characteristics:

- thickness – 6 mm.

Weight, kg	Code, ver. 2
0,34	BMD2031HDZ

## Plate for wall fastening of I-shaped profile BPM-50



### Purpose:

- wall fastening of I-shaped profile BPM-50.

### Characteristics:

- thickness – 5 mm.

Load, kg	Weight, kg	Code, ver. 2
820*	0,2	BMD2032HDZ

\* Maximum load for two fasteners

## Brackets

Brackets are designed to mount "S5 Combitech" sheet metal trays, "L5 Combitech" ladder metal trays and "F5 Combitech" wire mesh trays.

**Standard product:**

Version 1 – Sendzimir galvanized steel (zinc coating mass is 180–200 g/m<sup>2</sup>) or hot-dip galvanized steel.

**At customer's request:**

Version 2 (HDZ) – post hot-dip galvanized steel (zinc coating mass is 1000–1200 g/m<sup>2</sup>);

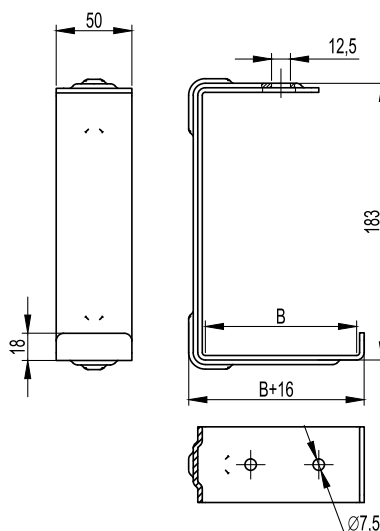
Version 3 (INOX) – stainless steel (AISI 304);

Version 4 (ZL) – post zinc-lamellar coated steel.

An appropriate index (HDZ/INOX/ZL) will be added to a product code.

Weight is indicated for standard versions.

### BBA-10 ceiling bracket



**Purpose:**

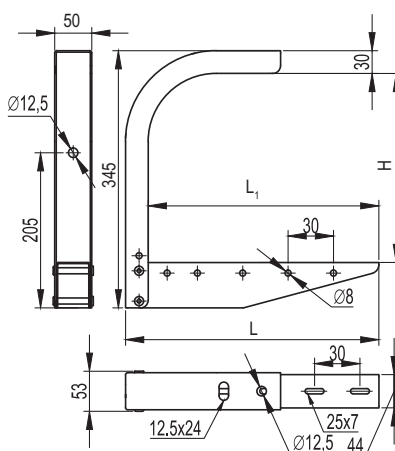
- mounting of low duty tray line;
- suspension on threaded pin;
- fixation to ceiling;
- fastening to wall.

**Characteristics:**

- steel thickness – 3 mm.

Max tray width B, mm	Load, kg	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
50	68	66	0,35	34109	BBA1005	BBA1005HDZ	BBA1005INOX	BBA1005ZL
100	63	116	0,44	34110	BBA1010	BBA1010HDZ	BBA1010INOX	BBA1010ZL
150	55	166	0,54	34111	BBA1015	BBA1015HDZ	BBA1015INOX	BBA1015ZL

## BBA-20 ceiling bracket



**Purpose:**

- mounting of low duty tray line;
- suspension on threaded pin;
- fixation to ceiling;
- fastening to wall.

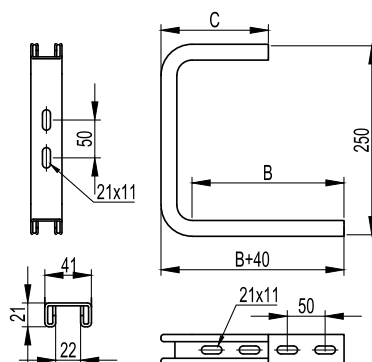
### Characteristics:

- steel thickness – 1,5 mm.

Max tray width, mm	Load, kg	Length L, mm	Length L <sub>1</sub> , mm	Height H, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 4
200	120	234	205	255	1,05	34112	BBA2020	BBA2020HDZ	BBA2020ZL
300	105	334	305	255	1,31	34113	BBA2030	BBA2030HDZ	BBA2030ZL
400	80	444	415	225	1,65	34114	BBA2040	BBA2040HDZ	BBA2040ZL
500	65	544	515	225	1,95	34115	BBA2050	BBA2050HDZ	BBA2050ZL
600	55	644	615	225	2,26	34116	BBA2060	BBA2060HDZ	BBA2060ZL



## BBA-30 (DS) ceiling bracket



### Purpose:

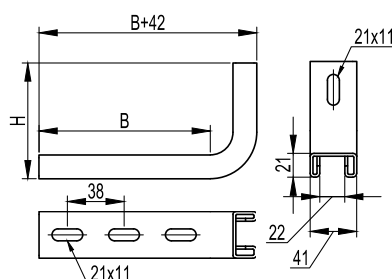
- mounting of low duty tray line;
- fixation to ceiling;
- fastening to wall.

### Characteristics:

- steel thickness – 2,5 mm;
- BBA3010, BBA3015 – 3 holes in base;
- BBA3020, BBC3030, BBC3040 – 2 holes in base.

Max tray width B, mm	Load, kg	Length, mm	Wich	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	285	140	95	0,80	34160	BBA3010	BBA3010HDZ	BBA3010INOX	BBA3010ZL
150	260	190	95	0,90	34161	BBA3015	BBA3015HDZ	BBA3015INOX	BBA3015ZL
200	190	240	142	1,08	34162	BBA3020	BBA3020HDZ	BBA3020INOX	BBA3020ZL
300	130	340	142	1,27	34163	BBA3030	BBA3030HDZ	BBA3030INOX	BBA3030ZL
400	105	440	142	1,46	34164	BBA3040	BBA3040HDZ	BBA3040INOX	BBA3040ZL

## Bracket BBC-30 (DW)



### Purpose:

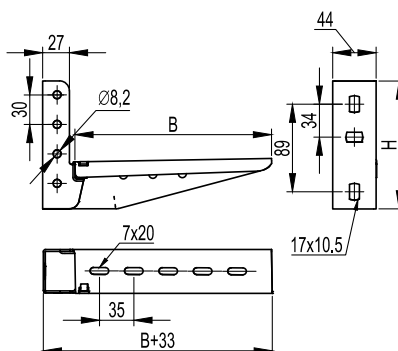
- mounting of low duty tray line;
- fastening to wall.

### Characteristics:

- steel thickness – 2,5 mm;
- BBC3010, BBC3015 – 1 holes in base;
- BBC3020, 3030, 3040 – 2 holes in base.

Max tray width B, mm	Load, kg	Length, mm	Height H, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	280	142	100	0,4	34150	BBC3010	BBC3010HDZ	BBC3010INOX	BBC3010ZL
150	170	192	100	0,5	34151	BBC3015	BBC3015HDZ	BBC3015INOX	BBC3015ZL
200	130	242	140	0,67	34152	BBC3020	BBC3020HDZ	BBC3020INOX	BBC3020ZL
300	115	342	140	0,86	34153	BBC3030	BBC3030HDZ	BBC3030INOX	BBC3030ZL
400	95	442	140	1,05	34154	BBC3040	BBC3040HDZ	BBC3040INOX	BBC3040ZL

## Bracket BBL-40 (light, ML)



### Purpose:

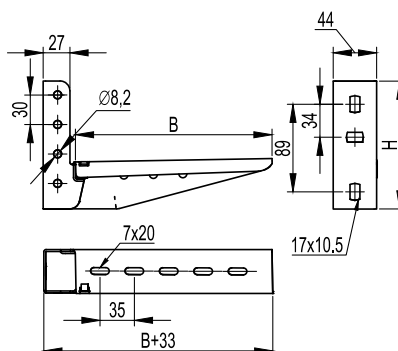
- mounting of cable tray line;
- fastening to wall;
- fastening to BPL-29 and BPM-29;
- fastening to BSV-29 inclined brackets.

### Characteristics:

- steel thickness – 1,5 mm.

Max tray width B, mm	Load, kg	Length, mm	Height H, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 4
100	145	133	125	0,21	34105	BBL4010	BBL4010HDZ	BBL4010ZL
150	136	183	130	0,28	34106	BBL4015	BBL4015HDZ	BBL4015ZL
200	120	233	130	0,34	34107	BBL4020	BBL4020HDZ	BBL4020ZL
300	96	333	140	0,45	34108	BBL4030	BBL4030HDZ	BBL4030ZL

## BBL-50 bracket (ML solid)



### Purpose:

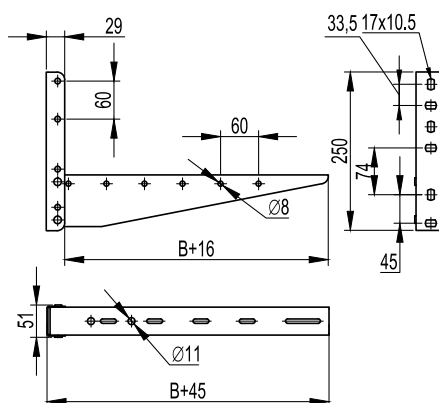
- mounting of cable tray line;
- fastening to wall;
- fastening to BPL-29 and BPM-29;
- fastening to BSV-29 inclined brackets.

### Characteristics:

- steel thickness for versions 1, 2 and 4 – 2 mm;
- steel thickness for version 3 – 1,5 mm.

Max tray width B, mm	Load, kg	Length, mm	Height H, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	245	133	125	0,29	34101	BBL5010	BBL5010HDZ	BBL5010INOX	BBL5010ZL
150	240	183	130	0,38	34102	BBL5015	BBL5015HDZ	BBL5015INOX	BBL5015ZL
200	235	233	130	0,45	34103	BBL5020	BBL5020HDZ	BBL5020INOX	BBL5020ZL
300	225	333	140	0,61	34104	BBL5030	BBL5030HDZ	BBL5030INOX	BBL5030ZL

## BBL-55 bracket (ML reinforced)



### Purpose:

- mounting of cable tray line;
- fastening to wall.

### Characteristics:

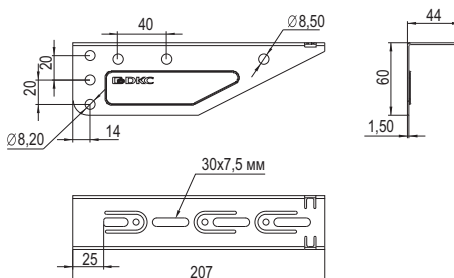
- steel thickness – 1,5 mm.

### Note:

- installation into BPL-29 and BPM-29 profile only from an open end of section.

Max tray width B, mm	Load, kg	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
400	280	445	1,04	33833	BBL5540	BBL5540HDZ	BBL5540INOX	BBL5540ZL
500	240	545	1,28	33834	BBL5550	BBL5550HDZ	BBL5550INOX	BBL5550ZL
600	160	645	1,52	33835	BBL5560	BBL5560HDZ	BBL5560INOX	BBL5560ZL

## BBM-50 bracket (BM 100-150)



### Purpose:

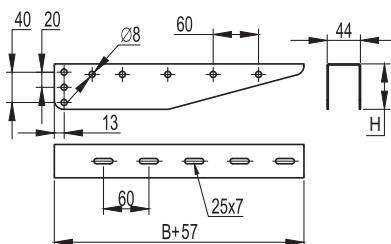
- mounting of cable tray line;
- fastening to BPL-29 and BPM-29;
- fastening to BSV-29 inclined brackets.

### Characteristics:

- steel thickness – 1,5 mm.

Max tray width B, mm	Load, kg	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	480	157	0,21	34179	BBM5010	BBM5010HDZ	BBM5010INOX	BBM5010ZL
150	360	207	0,30	34180	BBM5015	BBM5015HDZ	BBM5015INOX	BBM5015ZL

## BBM-50 bracket (BM 200-600)



### Purpose:

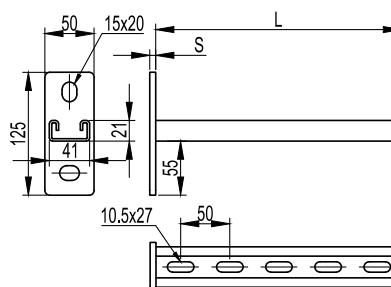
- mounting of cable tray line;
- fastening to BPL-29 and BPM-29;
- fastening to BSV-29 inclined brackets.

### Characteristics:

- steel thickness – 1,5 mm.

Max tray width B, mm	Load, kg	Length, mm	Height H, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	250	230	60	0,31	34182	BBM5020	BBM5020HDZ	BBM5020INOX	BBM5020ZL
300	190	330	60	0,50	34183	BBM5030	BBM5030HDZ	BBM5030INOX	BBM5030ZL
400	190	430	80	0,73	34184	BBM5040	BBM5040HDZ	BBM5040INOX	BBM5040ZL
500	170	530	80	0,97	34185	BBM5050	BBM5050HDZ	BBM5050INOX	BBM5050ZL
600	150	630	80	1,20	34186	BBM5060	BBM5060HDZ	BBM5060INOX	BBM5060ZL

## BBP-21 bracket (single, 41x21)



### Purpose:

- mounting of trays line, suspension elements and structures;
- fastening to wall/ceiling;
- fastening into: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41, BPM-51;
- fastening into single and double suspension.

### Characteristics:

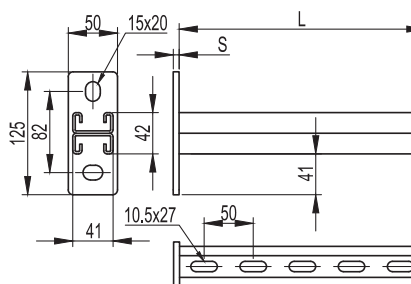
- 41x21 C-shaped profile bracket;
- thickness of bracket profile – 2,5 mm;
- interaxial interval of holes – 82 mm.

### Note:

- 2 holes on base for M10 metalware.

Max tray width, mm	Load, kg	Load, kg (wich BMU6020)	Load, kg (wich BMU6030)	Length L, mm	Plate thickness S, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	330	–	–	250	6	0,72	34032	BBP2120	BBP2120HDZ	BBP2120INOX	BBP2120ZL
300	270	–	–	350	6	0,90	34033	BBP2130	BBP2130HDZ	BBP2130INOX	BBP2130ZL
400	200	330	–	450	8	1,18	34034	BBP2140	BBP2140HDZ	BBP2140INOX	BBP2140ZL
500	130	270	330	550	8	1,34	34035	BBP2150	BBP2150HDZ	BBP2150INOX	BBP2150ZL
600	65	200	270	650	8	1,52	34036	BBP2160	BBP2160HDZ	BBP2160INOX	BBP2160ZL

## BBD-21 bracket (double, 41x21)



### Purpose:

- mounting of trays line, suspension elements and structures;
- fastening to wall/ceiling;
- fastening into: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41, BPM-51;
- fastening into single and double suspension.

### Characteristics:

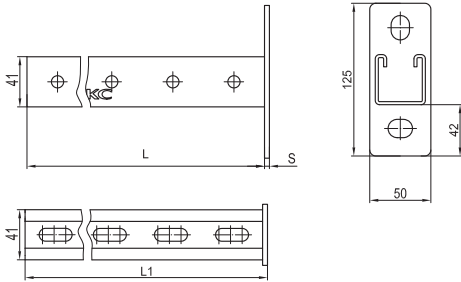
- possibility of double-sided mounting;
- 41x21 C-shaped double profile bracket;
- thickness of bracket profile – 2,5 mm;
- interaxial interval of holes – 82 mm.

### Note:

- 2 holes on base for M10 metalware.

Max tray width, mm	Load, kg	Load, kg (wich BMU6020)	Load, kg (wich BMU6030)	Length L, mm	Plate thickness S, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	530	–	–	250	6	1,16	34052	BBD2120	BBD2120HDZ	BBD2120INOX	BBD2120ZL
300	440	–	–	350	6	1,46	34053	BBD2130	BBD2130HDZ	BBD2130INOX	BBD2130ZL
400	350	530	–	450	8	1,98	34054	BBD2140	BBD2140HDZ	BBD2140INOX	BBD2140ZL
500	260	440	530	550	8	2,34	34055	BBD2150	BBD2150HDZ	BBD2150INOX	BBD2150ZL
600	170	350	440	650	8	2,66	34056	BBD2160	BBD2160HDZ	BBD2160INOX	BBD2160ZL

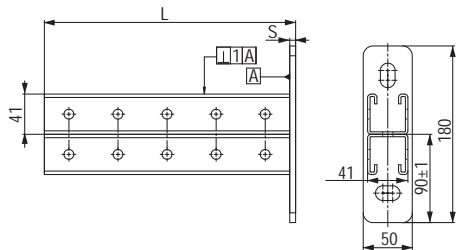
BBP-41 bracket (single, 41x41)



- Purpose:**
- mounting of trays line, suspension elements and structures;
  - fastening to wall/ceiling;
  - fastening into: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41, BPM-51;
  - fastening into single and double suspension.
- Characteristics:**
- 41x41 C-shaped bracket profile;
  - thickness of bracket profile – 2,5 mm;
  - interaxial interval of holes – 82 mm.
- Note:**
- 2 holes on base for M10 metalware.

Max tray width, mm	Load, kg	Load, kg (wich BMU6020)	Load, kg (wich BMU6030)	Length L, mm	Plate thickness S, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver.4
200	400	–	–	250	6	1,07	34042	BBP4120	BBP4120HDZ	BBP4120INOX	BBP4120ZL
300	350	–	–	350	6	1,33	34043	BBP4130	BBP4130HDZ	BBP4130INOX	BBP4130ZL
400	300	400	–	450	8	1,60	34044	BBP4140	BBP4140HDZ	BBP4140INOX	BBP4140ZL
500	250	350	400	550	8	1,86	34045	BBP4150	BBP4150HDZ	BBP4150INOX	BBP4150ZL
600	200	300	350	650	8	2,13	34046	BBP4160	BBP4160HDZ	BBP4160INOX	BBP4160ZL

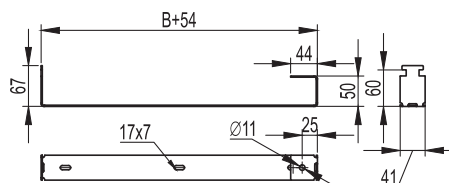
BBD-41 bracket (double, 41x41)



- Purpose:**
- mounting of trays line, suspension elements and structures;
  - fastening to wall/ceiling;
  - fastening into: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41, BPM-51;
  - fastening into single and double suspension.
- Characteristics:**
- possibility of double-sided mounting;
  - 41x41 C- shaped double profile bracket;
  - thickness of bracket profile – 2,5 mm;
  - interaxial interval of holes – 120 mm.
- Note:**
- 2 holes on base for M10 metalware.

Max tray width, mm	Load, kg	Length L, mm	Plate thickness S, mm	Weight, kg	Code, ver. 2
200	630	250	6	1,88	BBD4120HDZ
300	490	350	6	2,46	BBD4130HDZ
400	420	450	8	3,19	BBD4140HDZ
500	320	550	8	3,77	BBD4150HDZ
600	300	650	8	4,34	BBD4160HDZ

## BMZ-15 holder for fire-resistant separator


**Purpose:**

- installation of heat- and fire-resistant partitions between horizontal rows of cables.

**Characteristics:**

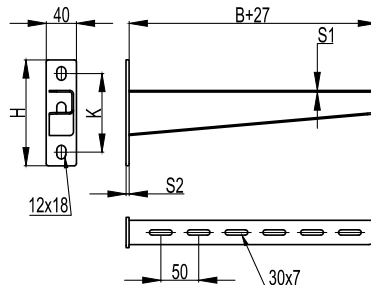
- separator width – from 200 to 600 mm;
- steel thickness – 1,5 mm.

**Note:**

- compatible with all bracket types from C-shaped profiles (BBP-21, BBP-41, BBD-21).

Max. separator width B, mm	Width, mm	Weight, kg	Code, ver. 1	Code, ver. 4
200	254	0,12	BMZ1520	BMZ1520ZL
300	354	0,17	BMZ1530	BMZ1530ZL
400	454	0,23	BMZ1540	BMZ1540ZL
500	554	0,29	BMZ1550	BMZ1550ZL
600	654	0,35	BMZ1560	BMZ1560ZL

## BBH-60 bracket (reinforced LP)


**Purpose:**

- mounting of high duty cable tray line;
- fastening into single and double suspension;
- fastening into: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41, BPM-51;
- fastening to wall.

**Characteristics:**

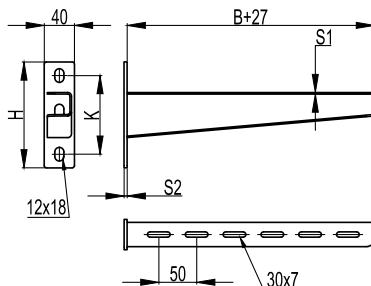
- Console shelf width – 32 mm.

**Note:**

- 2 holes on base for M10 metalware;
- S1 – console shelf thickness;
- S2 – wall plate thickness.

Max tray width B, mm	Load, kg	Length, mm	Shelf plate thickness S1, mm	Plate thickness S2, mm	Height H, mm	Height K, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	370	231	2	4	132	96	0,48	LP6002	BBH6020	BBH6020HDZ	BBH6020INOX	BBH6020ZL
300	360	331	2	4	140	104	0,67	LP6003	BBH6030	BBH6030HDZ	BBH6030INOX	BBH6030ZL
400	350	433	2,5	6	156	114	1,08	LP6004	BBH6040	BBH6040HDZ	BBH6040INOX	BBH6040ZL
500	330	533	2,5	6	158	122	1,27	LP6005	BBH6050	BBH6050HDZ	BBH6050INOX	BBH6050ZL
600	320	633	2,5	6	167	131	1,88	LP6006	BBH6060	BBH6060HDZ	BBH6060INOX	BBH6060ZL

## BBH-70 bracket (heavy reinforced LH)


**Purpose:**

- mounting of high duty cable tray line;
- fastening into single and double suspension;
- fastening into: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41, BPM-51;
- fastening to wall.

**Characteristics:**

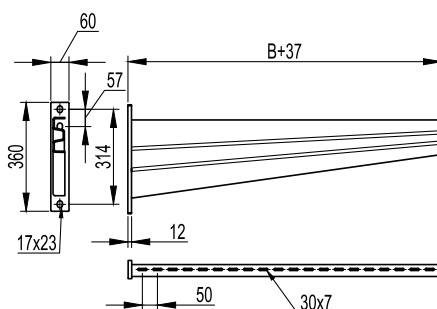
- console shelf width – 32 mm.

**Note:**

- 2 holes on base for M10 metalware;
- S1 – console shelf thickness;
- S2 – wall plate thickness.

Max tray width B, mm	Load, kg	Length, mm	Shelf plate thickness S1, mm	Plate thickness S2, mm	Height H, mm	Height K, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	450	233	2,5	6	132	96	0,61	LH6002	BBH7020	BBH7020HDZ	BBH7020INOX	BBH7020ZL
300	420	333	2,5	6	140	104	0,88	LH6003	BBH7030	BBH7030HDZ	BBH7030INOX	BBH7030ZL
400	400	435	3	8	156	114	1,32	LH6004	BBH7040	BBH7040HDZ	BBH7040INOX	BBH7040ZL
500	390	535	3	8	158	122	1,62	LH6005	BBH7050	BBH7050HDZ	BBH7050INOX	BBH7050ZL
600	380	635	3	8	167	131	1,97	LH6006	BBH7060	BBH7060HDZ	BBH7060INOX	BBH7060ZL

## BBH-80 bracket for heavy loads



### Purpose:

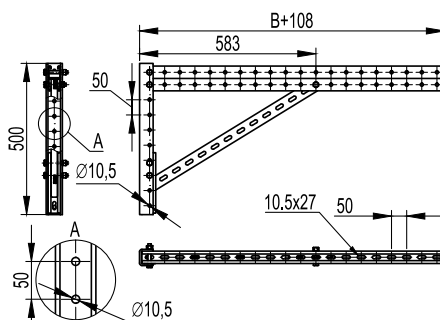
- mounting of high duty cable tray line;
- fastening into single and double suspension;
- fastening into: BPM-41, BPD-21, BPD-41, BPM-51;
- fastening to wall.

### Characteristics:

- console shelf thickness – 4 mm.

Max tray width B, mm	Load, kg	Weight, kg	Code, ver. 2
700	1140	8,04	BBH8070HDZ
800	980	9,18	BBH8080HDZ
900	680	10,33	BBH8090HDZ
1000	620	11,48	BBH8000HDZ

## BBD-41 bracket for heavy loads

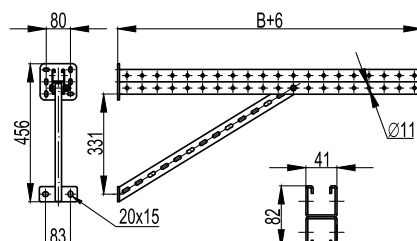


### Purpose:

- mounting of high duty cable tray line;
- fastening to BPM-50 I-shaped profile.

Max tray width B, mm	Load, kg	Weight, kg	Code, ver. 2
700	1100	9,16	BBD4170HDZ
800	900	9,53	BBD4180HDZ
900	770	9,89	BBD4190HDZ
1000	630	10,26	BBD4100HDZ

## BBS-41 bracket for heavy loads

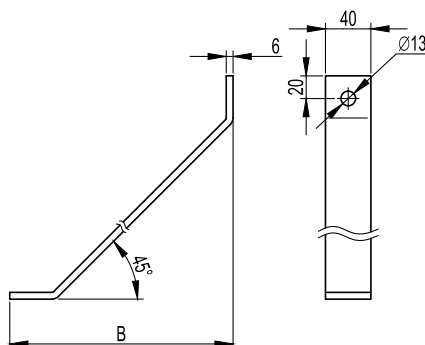


### Purpose:

- mounting of high duty cable tray line;
- fastening to wall.

Max tray width B, mm	Load, kg	Weight, kg	Code, ver. 2
700	1100	6,0	BBS4170HDZ
800	900	6,4	BBS4180HDZ
900	770	6,8	BBS4190HDZ
1000	630	7,2	BBS4100HDZ

## BMU-60 gibbet for brackets and traverses


**Purpose:**

- exceeding of bearing capacity of brackets and traverses from C-shaped profile.

**Characteristics:**

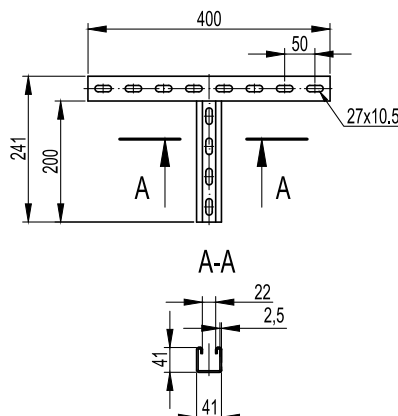
- 1 hole for M12 metalware in the base.

**Note:**

- compatible with all types of brackets from C-shaped profiles (BBP-21, BBP-41, BBD-21) and brackets (BSP-21, BSD-21, BSD-41).

Length B, mm	Weight, kg	Code, ver. 2
200	0,60	BMU6020HDZ
300	0,87	BMU6030HDZ
500	1,42	BMU6050HDZ

## BMH-30 T-fastener to vertical double T-beam


**Purpose:**

- fastening of brackets to vertical double T-beams.

**Characteristics:**

- C-shaped profile;
- T-shaped fastening form.

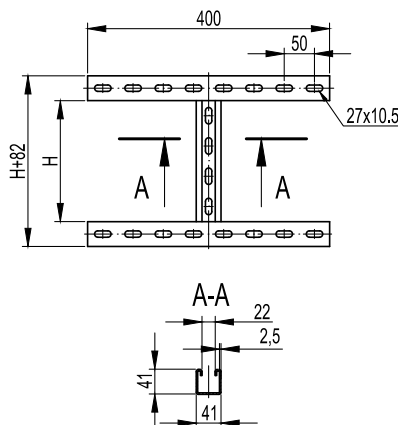
**Note:**

- compatible with brackets: BBH-60, BBH-70, BBD-21, BBP-21/41.

Max beam width, mm	Load, kg*	Weight, kg	Code, ver. 2
300	250	1,01	BMH3020HDZ

\* Fastener used together with 2 locking clamps (CM301001). Wrench torque of bolts fixing clamps is 40,2 Nm

## BMH-40 H-fastener to vertical double T-beam


**Purpose:**

- fastening of brackets to vertical double T-beams.

**Characteristics:**

- C-shaped profile;
- H-shaped fastening form.

**Note:**

- compatible with brackets: BBH-60, BBH-70, BBD-21, BBP-21/41.

Max beam width, mm	Load, kg*	Height H, mm	Weight, kg	Code, ver. 2
300	350	200	1,52	BMH4020HDZ
300	350	400	2,02	BMH4040HDZ

\* Fastener used together with 2 locking clamps (CM301001). Wrench torque of bolts fixing clamps is 40,2 Nm

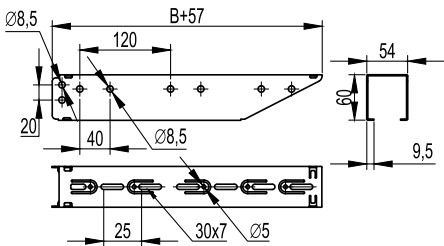
Easy-fixed Suspension Systems

Special profiles and brackets are designed for mounting of suspension systems without bolt connections. BBF easy-fixed brackets are latched into BPF profile, this reduces mounting time. They are applied for mounting of "S5 Combitech" metal sheet trays, "L5 Combitech" metal ladder trays and "F5 Combitech" metal wire mesh trays.

**Standard product:**  
Version 1 – Sendzimir galvanized steel (zinc coating mass is 180–200 g/m<sup>2</sup>).

**At customer's request:**  
Version 2 (HDZ) – post hot-dip galvanized steel (zinc coating mass is 1000–1200 g/m<sup>2</sup>);  
Version 3 (INOX) – stainless steel (AISI 304);  
Version 4 (ZL) – zinc-lamellar coated steel.

BBF-50 easy fixed bracket

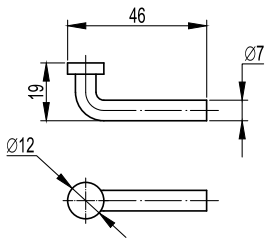


- Purpose:**
- mounting of cable tray line;
  - fastening to BPF profile.
- Characteristics:**
- easy-fixed construction;
  - U-shaped profile;
  - steel thickness – 1,5 mm.

Max tray width B, mm	Load, kg*	Length, mm	Weight, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 4
100	280	157	0,23	BBF5010	BBF5010HDZ	BBF5010INOX	BBF5010ZL
150	270	207	0,33	BBF5015	BBF5015HDZ	BBF5015INOX	BBF5015ZL
200	240	257	0,44	BBF5020	BBF5020HDZ	BBF5020INOX	BBF5020ZL
300	200	357	0,65	BBF5030	BBF5030HDZ	BBF5030INOX	BBF5030ZL
400	160	457	0,86	BBF5040	BBF5040HDZ	BBF5040INOX	BBF5040ZL
500	120	557	1,08	BBF5050	BBF5050HDZ	BBF5050INOX	BBF5050ZL
600	80	657	1,29	BBF5060	BBF5060HDZ	BBF5060INOX	BBF5060ZL

\* bracket used together with 2 fixers (BBF5001HDZ)

BBF bracket fixer

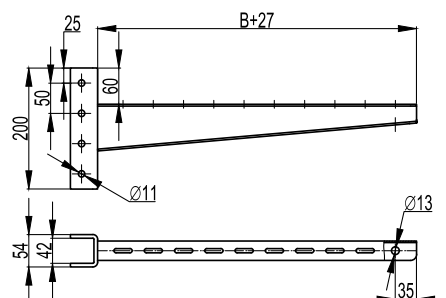


- Purpose:**
- a pin to fix BBF-50 bracket to BPF profile;
  - eliminates the possibility to dismount BBF bracket from BPF profile without prior fixer dismounting;
  - required for places with mechanical effects on mounted brackets.
- Characteristics:**
- diameter – 7 mm.

Description	Weight, kg	Code, ver. 2
BBF-50 console fixer	0,01	BBF5001HDZ



## BBF-60 easy-fixed bracket


**Purpose:**

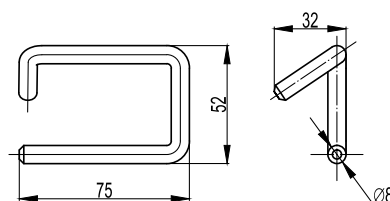
- mounting of cable trays lines;
- fastening to BPM-41 and BPD-41 profiles together with pin BBF5002HDZ;
- fastening to I-shaped profile BPM-50.

**Characteristics:**

- easy-fixed construction;
- thickness of bracket shelf – 2,5 mm for dimension types 200 and 300 mm; 3 mm for dimension types 400, 500, 600 mm;
- bracket base thickness – 4 mm.

Max tray width B, mm	Load, kg	Length, mm	Weight, kg	Code, ver. 2
200	450	271	1,55	BBF6020HDZ
300	420	371	1,75	BBF6030HDZ
400	400	471	2,21	BBF6040HDZ
500	390	571	2,49	BBF6050HDZ
600	380	671	2,77	BBF6060HDZ

## BBF bracket fixer


**Purpose:**

- a pin to fix BBF-60 bracket to profile;
- required for installation together with BBF-60 bracket.

**Characteristics:**

- diameter – 8 mm.

Description	Weight, kg	Code, ver. 2
BBF-60 bracket fixer	0,01	BBF5002HDZ

### Recommended kit for BBF-60 fastening to BPM-50 I-shaped profile

Code	Description	Quantity, pcs.
BMD2002HDZ	Plate for BBF-60 fastening to heavy suspension/ profile, hot-dip galvanized	2
CM081090	M10x90 hexagon bolt	2
CM241000	M10 washer narrow DIN125	2
CM131000	M10 grover washer	2
CM111000	M10 white nut	2
CM081240	M12x40 hexagon bolt	2
CM131200	M12 grover washer	2
CM111200	M12 white nut	2
CM241200	M12 washer narrowDIN125	2

Ceiling supports and traverses

Ceiling supports are designed for one- or double-side mounting of cable lines on double or single ceiling supports. Inclined and straight ceiling supports are used for mounting on inclined surfaces, ceilings or as floor supports. Traverses are used for suspension of cable trays, ventilation ducts and pipes on threaded pins.

Standard product:

Version 1 – Sendzimir galvanized steel (zinc coating mass is 180–200 g/m<sup>2</sup>) or steel with zinc plated coating .

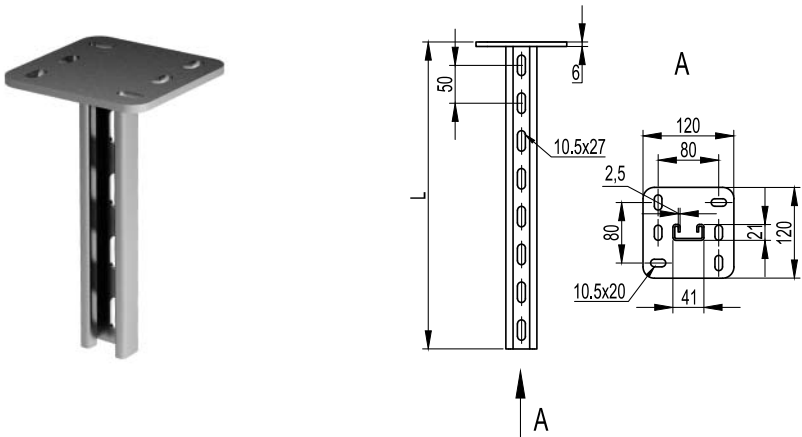
At customer's request:

Version 2 (HDZ) – post hot-dip galvanized steel (zinc coating mass is 1000–1200 g/m<sup>2</sup>);

Version 3 (INOX) – stainless steel (AISI 304);

Version 4 (ZL) – zinc-lamellar coated steel.

BSP-21 ceiling support (41x21, single)

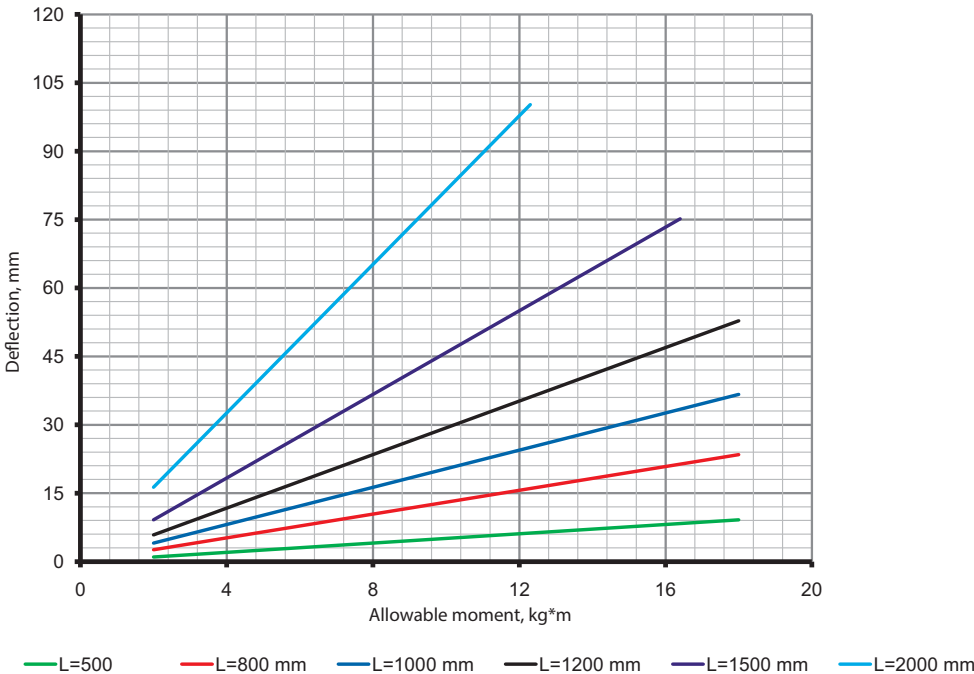


- Purpose:**
- mounting: BBH-60, BBH-70, BBD-21, BBP-21/41;
  - one-side mounting of cable lines;
  - ceiling and floor fixation.
- Characteristics:**
- 41x21 C-shaped bracket profile;
  - thickness – 2,5 mm;
  - plate thickness – 6 mm.
- Note:**
- 6 holes for M10 metal ware on base.

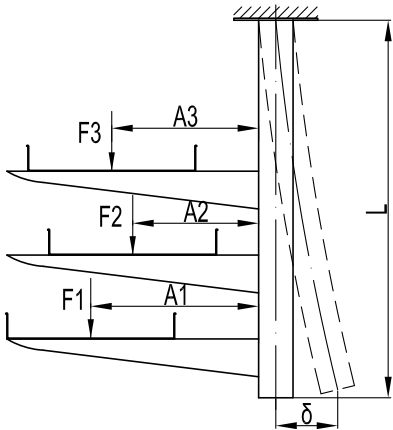
Length L, mm	Weight, kg	Mp, kg*m	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	0,78	18	LP7002	BSP2102	BSP2102HDZ	BSP2102INOX	BSP2102ZL
300	1,17	18	LP7003	BSP2103	BSP2103HDZ	BSP2103INOX	BSP2103ZL
400	1,36	18	LP7004	BSP2104	BSP2104HDZ	BSP2104INOX	BSP2104ZL
500	1,55	18	LP7005	BSP2105	BSP2105HDZ	BSP2105INOX	BSP2105ZL
600	1,74	18	LP7006	BSP2106	BSP2106HDZ	BSP2106INOX	BSP2106ZL
800	2,12	18	LP7008	BSP2108	BSP2108HDZ	BSP2108INOX	BSP2108ZL
1000	2,50	18	LP7010	BSP2110	BSP2110HDZ	BSP2110INOX	BSP2110ZL
1200	2,88	18	LP7012	BSP2112	BSP2112HDZ	BSP2112INOX	BSP2112ZL
1500	3,45	16,4	LP7015	BSP2115	BSP2115HDZ	BSP2115INOX	BSP2115ZL
2000	4,40	12,3	LP7020	BSP2120	BSP2120HDZ	BSP2120INOX	BSP2120ZL

Besides standard lengths in versions 2 and 3 it's possible to manufacture brackets of any length in the range from 200 to 2000 mm with a step of 100 mm

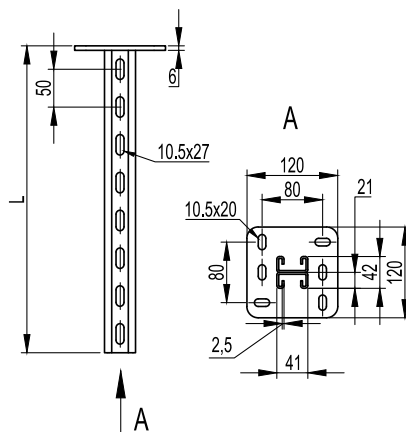
Load diagram



- Definition of maximum deflection:**
- version 1 and 2;
  - tests according GOST R52868;
  - total moment is calculated  $\Sigma M = F1 \cdot A1 + F2 \cdot A2 + F3 \cdot A3$ , where F1, F2, F3 -load applied at center of console, kg;
  - A1, A2, A3 – load arm, m;
  - deflection is defined according to diagram.



## BSD-21 ceiling support (41x21, double)



### Purpose:

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- one-, double-side and parallel mounting of cable lines;
- ceiling and floor fixation.

### Characteristics:

- C-shaped double ceiling support profile 41x21;
- thickness – 2,5 mm;
- plate thickness – 6 mm.

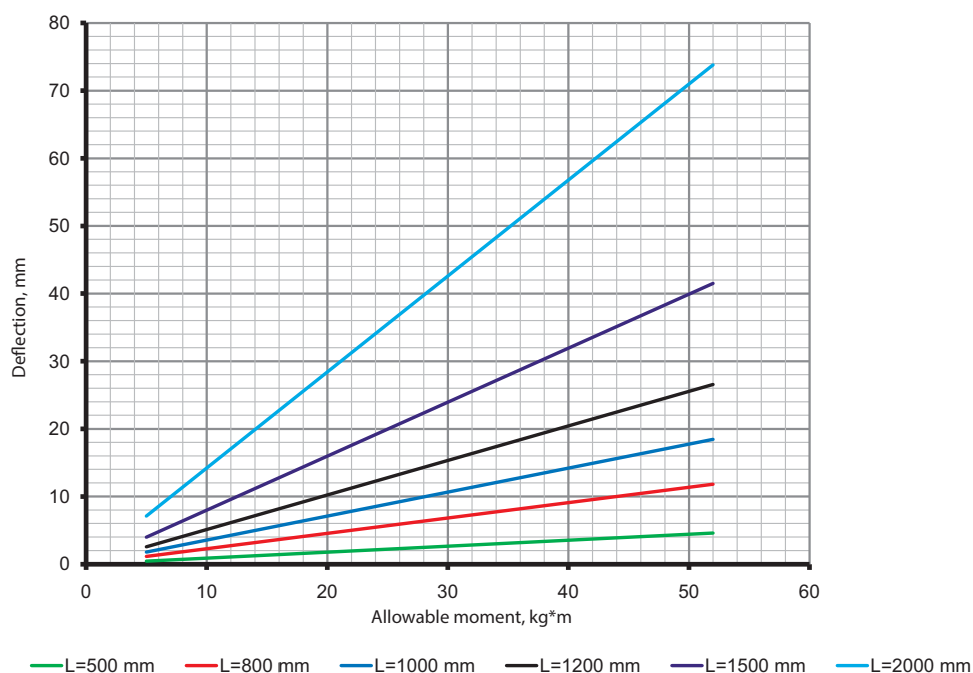
### Note:

- 6 holes for M10 metal ware on base.

Length L, mm	Weight, kg	Mp, kg*m	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	1,36	52	LP8102	BSD2102	BSD2102HDZ	BSD2102INOX	BSD2102ZL
300	1,68	52	LP8103	BSD2103	BSD2103HDZ	BSD2103INOX	BSD2103ZL
400	2,12	52	LP8104	BSD2104	BSD2104HDZ	BSD2104INOX	BSD2104ZL
500	2,50	52	LP8105	BSD2105	BSD2105HDZ	BSD2105INOX	BSD2105ZL
600	2,88	52	LP8106	BSD2106	BSD2106HDZ	BSD2106INOX	BSD2106ZL
800	3,64	52	LP8108	BSD2108	BSD2108HDZ	BSD2108INOX	BSD2108ZL
1000	5,16	52	LP8110	BSD2110	BSD2110HDZ	BSD2110INOX	BSD2110ZL
1200	6,30	52	LP8112	BSD2112	BSD2112HDZ	BSD2112INOX	BSD2112ZL
1500	7,00	52	LP8115	BSD2115	BSD2115HDZ	BSD2115INOX	BSD2115ZL
2000	8,20	52	LP8120	BSD2120	BSD2120HDZ	BSD2120INOX	BSD2120ZL

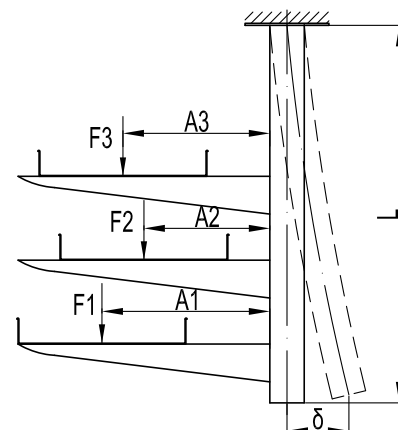
Besides standard lengths in versions 2 and 3 it's possible to manufacture ceiling supports of any length in the range from 200 to 3000 mm with a step of 100 mm

### Load diagram

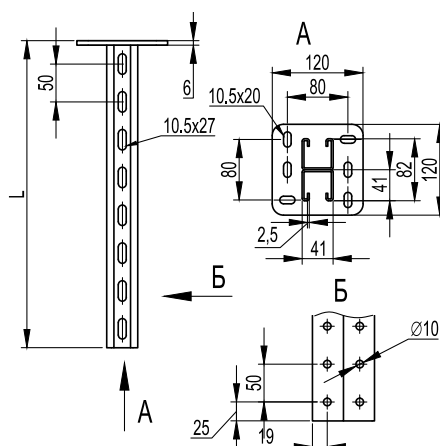


### Definition of maximum deflection:

- version 1 and 2;
- tests according GOST R52868;
- total moment is calculated  $\Sigma M = F1 \cdot A1 + F2 \cdot A2 + F3 \cdot A3$ , where F1, F2, F3 -load applied at center of console, kg;
- A1, A2, A3 – load arm, m;
- deflection is defined according to diagram.



### BSD-41 ceiling support (41x41 double)



**Purpose:**

- mounting BBH-60, BBH-70, BBD-21, BBP-21/41;
- one-, double-side and parallel mounting of cable lines;
- mounting of suspended;
- ceiling and floor fixation.

### Characteristics:

- C-shaped double ceiling support profile 41x41;
- thickness – 2,5 mm;
- plate thickness – 6 mm.

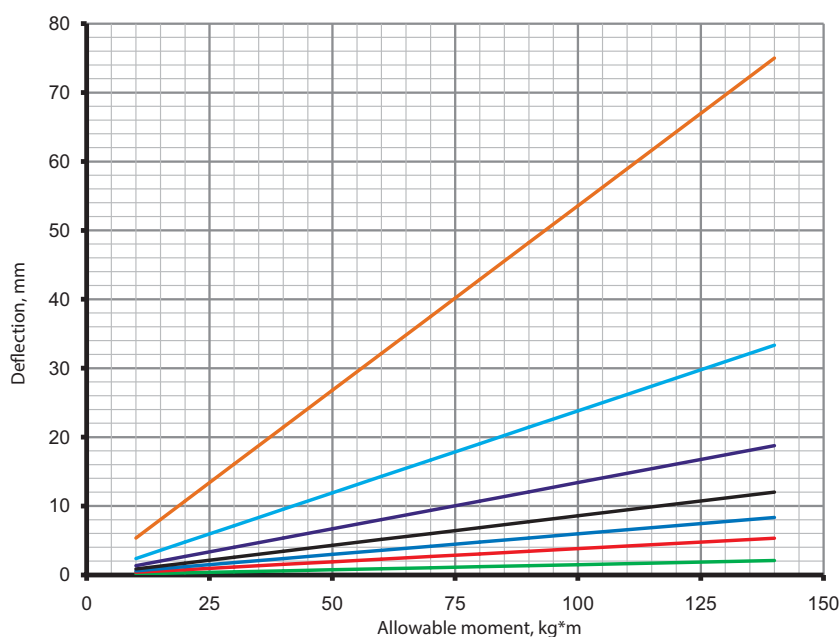
**Note:**

- 6 holes for M10 metal ware on base.

Length L, mm	Weight, kg	Mp, kg*m	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
200	1,67	140	LP8002	BSD4102	BSD4102HDZ	BSD4102INOX	BSD4102ZL
300	2,21	140	LP8003	BSD4103	BSD4103HDZ	BSD4103INOX	BSD4103ZL
400	2,74	140	LP8004	BSD4104	BSD4104HDZ	BSD4104INOX	BSD4104ZL
500	3,27	140	LP8005	BSD4105	BSD4105HDZ	BSD4105INOX	BSD4105ZL
600	3,80	140	LP8006	BSD4106	BSD4106HDZ	BSD4106INOX	BSD4106ZL
800	4,87	140	LP8008	BSD4108	BSD4108HDZ	BSD4108INOX	BSD4108ZL
1000	5,70	140	LP8010	BSD4110	BSD4110HDZ	BSD4110INOX	BSD4110ZL
1200	6,72	140	LP8012	BSD4112	BSD4112HDZ	BSD4112INOX	BSD4112ZL
1500	8,59	140	LP8015	BSD4115	BSD4115HDZ	BSD4115INOX	BSD4115ZL
2000	11,2	140	LP8020	BSD4120	BSD4120HDZ	BSD4120INOX	BSD4120ZL

Besides standard lengths in versions 2 and 3 it's possible to manufacture ceiling supports of any length in the range from 200 to 3000 mm with a step of 100 mm

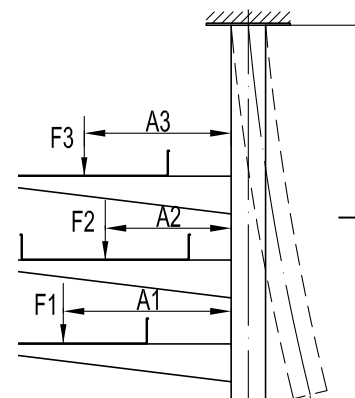
### Load diagram



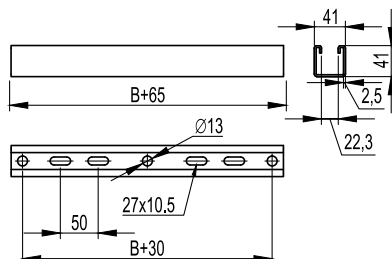
— L=500 mm — L=800 mm — L=1000 mm — L=1200 mm — L=1500 mm — L=2000 mm — L=3000 mm

**Definition of maximum deflection:**

- version 1 and 2;
- tests according GOST R52868;
- total moment is calculated  $\Sigma M = F_1 \cdot A_1 + F_2 \cdot A_2 + F_3 \cdot A_3$ , where  $F_1, F_2, F_3$  -load applied at center of console, kg;
- $A_1, A_2, A_3$  – load arm, m;
- deflection is defined according to diagram.



## BST-41 Traverse (41x41 single)



### Purpose:

- suspension of cable lines from ceiling with threaded pins;
- mounting of hanging structures.

### Characteristics:

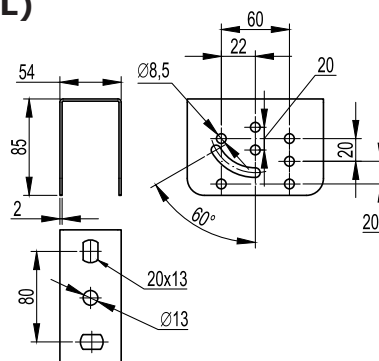
- C-bracket 41x41;
- thickness – 2,5 mm;

### Note:

- suspension on 1 threaded pin (central suspension), or on 2 pins.

Max tray width, mm	Length L, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
300	365	0,91	LP2003	BST4130	BST4130HDZ	BST4130INOX	BST4130ZL
400	465	1,16	LP2004	BST4140	BST4140HDZ	BST4140INOX	BST4140ZL
500	565	1,41	LP2005	BST4150	BST4150HDZ	BST4150INOX	BST4150ZL
600	665	1,62	LP2006	BST4160	BST4160HDZ	BST4160INOX	BST4160ZL

## BSV-29 fastening to ceiling (SML)

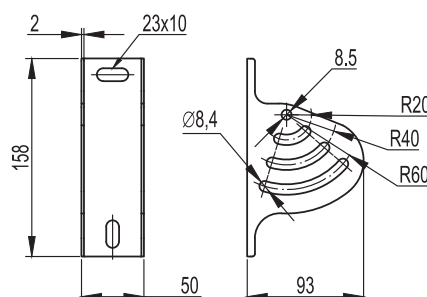


### Purpose:

- suspension of cable line;
- mounting BPL-29 and BPM-29;
- mounting BBL-40, BBL-50 and BBM-50;
- fastening to inclined and straight surface.

Load, kg	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
250	0,40	34141	BSV2901	BSV2901HDZ	BSV2901INOX	BSV2901ZL

## BSV-29 fastening to ceiling (SSC)

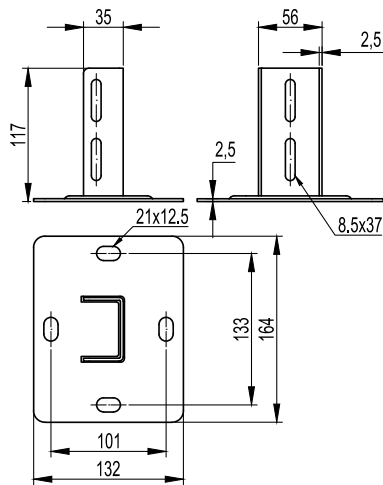


### Purpose:

- suspension of cable line;
- mounting of BBL-40, BBL-50 and BBM-50;
- fastening to inclined and straight surface.

Load, kg	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
250	0,30	34145	BSV2902	BSV2902HDZ	BSV2902INOX	BSV2902ZL

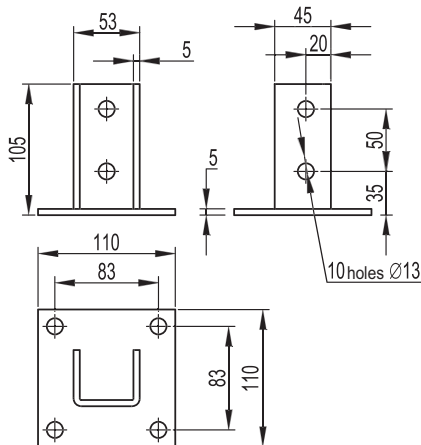
BSF-29 fastening to ceiling (SSM)



- Purpose:**
- suspension of cable line;
  - mounting: BPL-29 and BPM-29;
  - mounting: BBL-40, BBL-50;
  - floor support;
  - fastening to straight surface.
- Note:**
- 4 holes for M8 metalware on the base.

Load, kg	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
500	0,68	34143	BSF2901	BSF2901HDZ	BSF2901INOX	BSF2901ZL

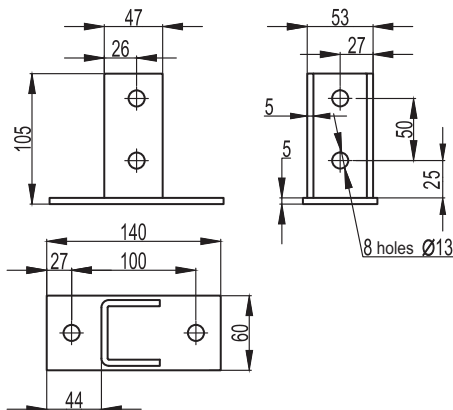
BSF-41 fastening to ceiling (SSH)



- Purpose:**
- suspension of cable line;
  - mounting: BPL-21, BPL-41, BPM-21, BPM-41;
  - floor support;
  - fastening to straight surface.
- Note:**
- 4 holes for M12 metalware on the base.

Load, kg	Weight, kg	Old code	New code, ver. 2
500	0,99	34020HDZ	BSF4101HDZ

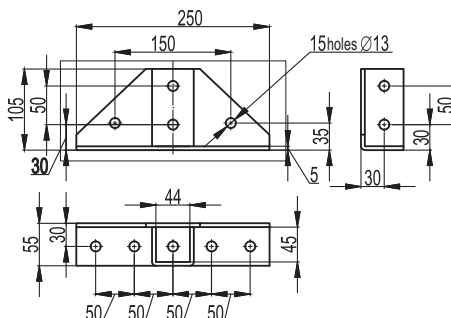
BSF-41 fastening to ceiling (SSH)



- Purpose:**
- suspension of cable line;
  - mounting: BPL-41, BPM-41;
  - floor support;
  - fastening to straight surface.

Load, kg	Weight, kg	Code, ver. 2
500	0,84	BSF4102HDZ

## BSF-41 fastening to ceiling with platform, reinforced

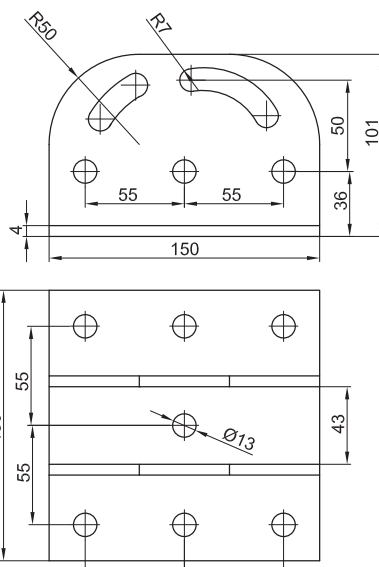


### Purpose:

- suspension of cable line;
- mounting: BPL-41, BPM-41;
- floor support;
- fastening to straight surface.

Weight, kg	Code, ver. 2
1,72	BSF4103HDZ

## BSF-41 fastening to ceiling with platform, hinged



### Purpose:

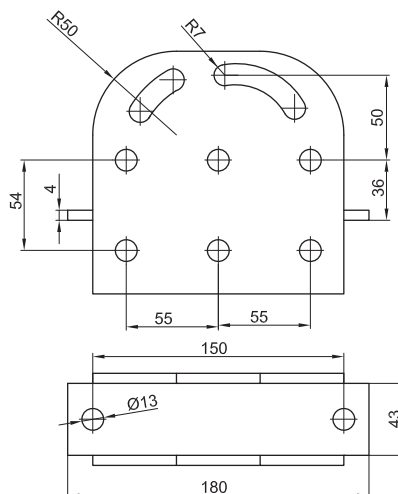
- suspension of cable line;
- mounting BPL-41, BPM-41;
- floor support;
- fastening to straight surface.

### Note:

- 4 holes for M12 metalware on the base.

Weight, kg	Code, ver. 2
2,07	BSF4104HDZ

## BSF-41 fastening to profile, hinged

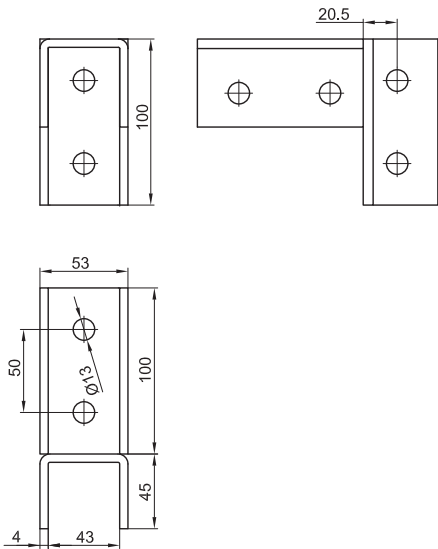


### Purpose:

- connection of BPL-41, BPM-41 profiles at an angle.

Weight, kg	Code, ver. 2
1,72	BSF4105HDZ

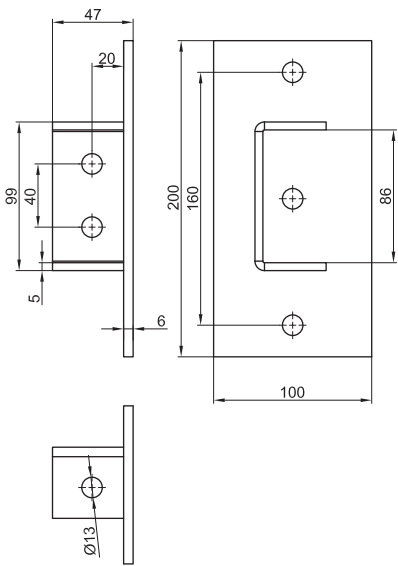
BSF-41 profile connector



**Purpose:**  
• T-shaped connection of BPL-41, BPM-41.

Weight, kg	Code, ver. 2
0,93	BSF4106HDZ

BSF-82 fastening to ceiling

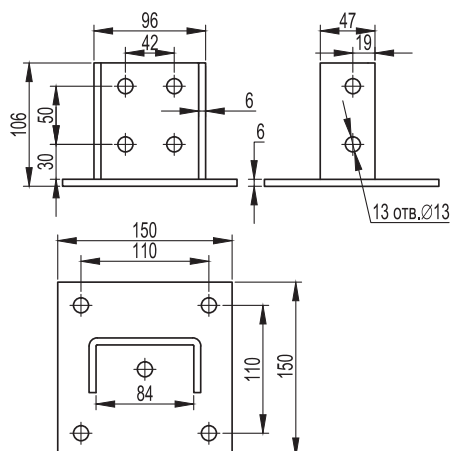


**Purpose:**  
• suspension of cable line;  
• mounting BPD-41;  
• floor support;  
• fastening to straight surface.  
**Note:**  
• 4 holes for M12 metalware on the base.

Load, kg	Weight, kg	Code, ver. 2
500	1,30	BSF8202HDZ



## BSF-82 fastening to ceiling, reinforced



### Purpose:

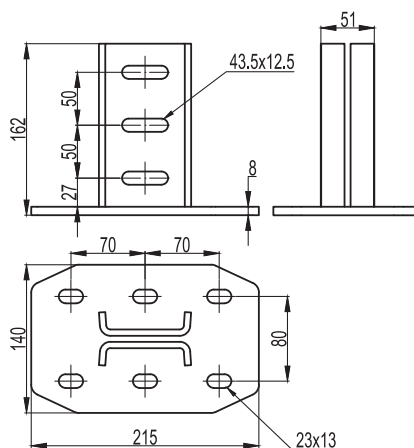
- suspension of cable line;
- mounting BPD-41;
- floor support;
- fastening to straight surface.

### Note:

- 4 holes for M12 metalware on the base.

Load, kg	Weight, kg	Code, ver. 2
500	1,75	BSF8201HDZ

## BSF-50 fastening to ceiling

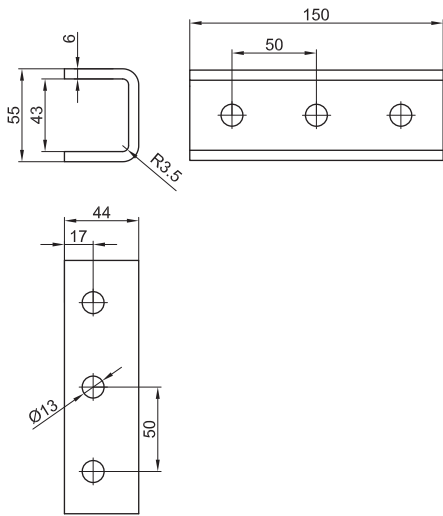


### Purpose:

- suspension of cable line;
- mounting BPM-50;
- floor support.

Weight, kg	Code, ver. 2
3,26	BSF5001HDZ

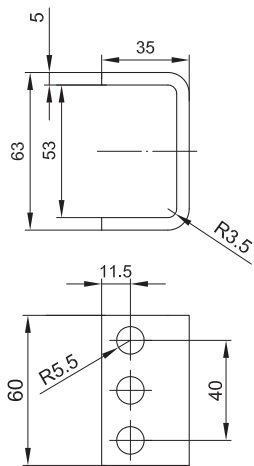
BSW-41 welded fastening



**Purpose:**  
• welding to runs and other bearing structures for further BPL-41/BPM-41 fastening.

Weight, kg	Code
1,45	BSW4101

BSW-29 welded fastening



**Purpose:**  
• welding to runs and other bearing structures for further BPL-29/BPM-29 fastening.

Weight, kg	Code
0,4	BSW2901

## Clamps

### Standard product:

Version 1 – Sendzimir galvanized steel (zinc coating mass is 180–200 g/m<sup>2</sup>).

### At customer's request:

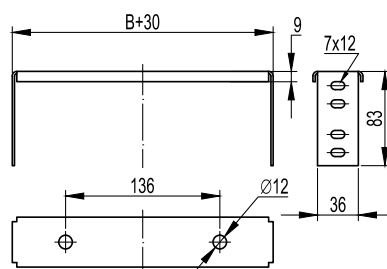
Version 2 (HDZ) – post hot-dip galvanized steel (zinc coating mass is 1000–1200 g/m<sup>2</sup>);

Version 3 (INOX) – stainless steel (AISI 304);

Version 4 (ZL) – zinc-lamellar coated steel.

Weight is indicated for standard versions.

### BMP-10 upper clamp (STP)



#### Purpose:

- suspension of low duty cable line;
- fastening to ceiling;
- fastening on pins.

#### Characteristics:

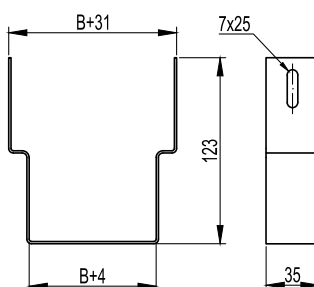
- steel thickness – 2 mm.

#### Note:

- used together with BMS-10 clamp and BMA-10 connector.

Max tray width B, mm	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
50	80	0,15	34280	BMP1005	BMP1005HDZ	BMP1005INOX	BMP1005ZL
80	110	0,18	34281	BMP1008	BMP1008HDZ	BMP1008INOX	BMP1008ZL
100	130	0,19	34282	BMP1010	BMP1010HDZ	BMP1010INOX	BMP1010ZL
150	180	0,22	34283	BMP1015	BMP1015HDZ	BMP1015INOX	BMP1015ZL
200	230	0,25	34284	BMP1020	BMP1020HDZ	BMP1020INOX	BMP1020ZL
300	330	0,27	34285	BMP1030	BMP1030HDZ	BMP1030INOX	BMP1030ZL
400	430	0,34	34286	BMP1040	BMP1040HDZ	BMP1040INOX	BMP1040ZL
500	530	0,43	34287	BMP1050	BMP1050HDZ	BMP1050INOX	BMP1050ZL

### BMS-10 lower clamp (STS 50-80)



#### Purpose:

- suspension of low duty cable line.

#### Characteristics:

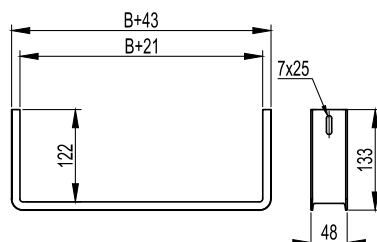
- steel thickness – 1,5 mm.

#### Note:

- used together with BMP-10 clamp and BMA-10 connector.

Max tray width B, mm	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
50	81	0,13	34300	BMS1005	BMS1005HDZ	BMS1005INOX	BMS1005ZL
80	111	0,15	34301	BMS1008	BMS1008HDZ	BMS1008INOX	BMS1008ZL

## BMS-10 lower clamp (STS 100-500)



### Purpose:

- suspension of low duty cable line.

### Characteristics:

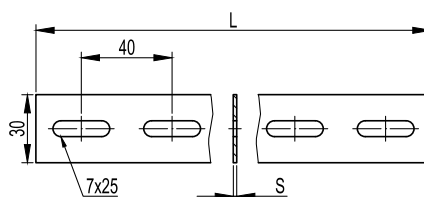
- steel thickness – 2 mm.

### Note:

- compatible with BMP-10 clamp and BMA-10 connector.

Max tray width B, mm	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	143	0,35	34302	BMS1010	BMS1010HDZ	BMS1010INOX	BMS1010ZL
150	193	0,39	34303	BMS1015	BMS1015HDZ	BMS1015INOX	BMS1015ZL
200	243	0,44	34304	BMS1020	BMS1020HDZ	BMS1020INOX	BMS1020ZL
300	343	0,54	34305	BMS1030	BMS1030HDZ	BMS1030INOX	BMS1030ZL
400	443	0,64	34306	BMS1040	BMS1040HDZ	BMS1040INOX	BMS1040ZL
500	543	0,73	34307	BMS1050	BMS1050HDZ	BMS1050INOX	BMS1050ZL

## BMA-10 (BA) connector for clamps BMP-10/BMS-10



### Purpose:

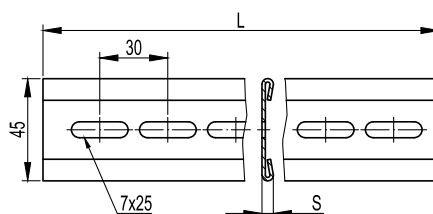
- connection of BMP-10 and BMS-10 clamps used for suspension of low duty cable lines on pins.

### Characteristics:

- connector is perforated with slots 7x25 mm at pitch 40 mm.

Length L, mm	Load, kg	Plate thickness S, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
2000	569	2	0,40	36450	BMA1023	BMA1023HDZ	BMA1023INOX	BMA1023ZL
1000	569	1,5	0,30	37910	BMA1013	BMA1013HDZ	BMA1013INOX	BMA1013ZL

## BMA-10 (BAR) connector for clamps BMP-10/BMS-10



### Purpose:

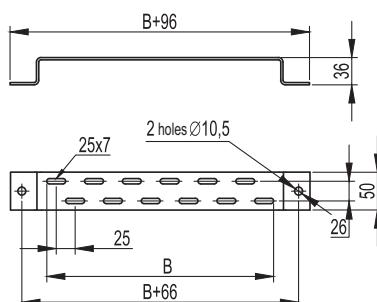
- connection of BMP-10 and BMS-10 clamps used for suspension of low duty cable lines on pins.

### Characteristics:

- connector is perforated with slots 7x25 mm at pitch 30 mm and bended edge, which increases rigidity.

Length L, mm	Load, kg	Plate thickness S, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
2000	759	1,5	0,15	34250	BMA1015	BMA1015HDZ	BMA1015INOX	BMA1015ZL

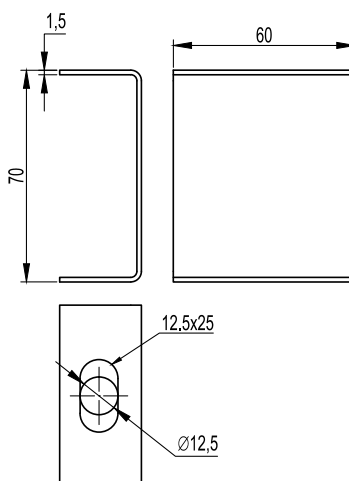
## BMM-10 clamp (TM)


**Purpose:**

- vertical, floor trays mounting;
- suspension on threaded pins.

Max tray width B, mm	Length, mm	Thickness, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	196	2	0,31	30690	BMM1010	BMM1010HDZ	BMM1010INOX	BMM1010ZL
150	246	2	0,37	30691	BMM1015	BMM1015HDZ	BMM1015INOX	BMM1015ZL
200	296	2	0,43	30692	BMM1020	BMM1020HDZ	BMM1020INOX	BMM1020ZL
300	396	2	0,55	30693	BMM1030	BMM1030HDZ	BMM1030INOX	BMM1030ZL
400	496	3	0,68	30694	BMM1040	BMM1040HDZ	BMM1040INOX	BMM1040ZL
500	596	3	0,78	30695	BMM1050	BMM1050HDZ	BMM1050INOX	BMM1050ZL

## BML-10 clamp (light PL)


**Purpose:**

- suspension of cable line to the ceiling on pins.

**Characteristics:**

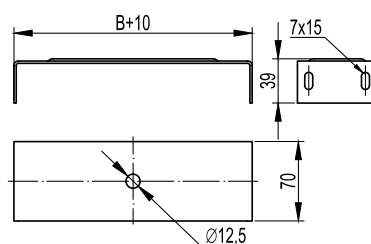
- steel thickness – 1,5 mm.

**Note:**

- protects pins from damage caused by oscillating line when putting additional cables;
- to increase the rigidity it is recommended to use two clamps connected together in the inversed manner and run a pin through them.

Load, kg	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
60	0,17	34290	BML1007	BML1007HDZ	BML1007INOX	BML1007ZL

## BMT-10 clamp (SPC) for tray


**Purpose:**

- centered suspension of low duty cable line on one pin.

**Characteristics:**

- steel thickness – 2 mm.

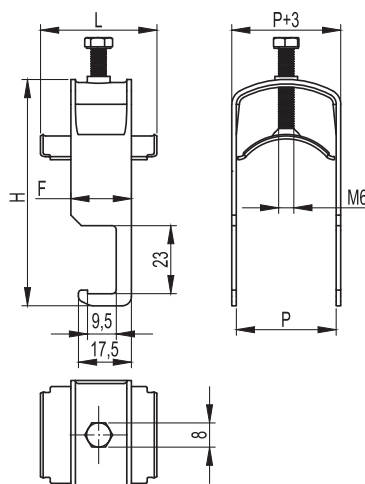
**Note:**

- 50x50 mm tray can be mounted without clamp, only with pin, nuts and washers, pin is fixed into the hole at the center of a tray.

Max tray width B, mm	Length, mm	Weight, kg	Old code	New code, ver. 1	New code, ver. 2	New code, ver. 3	New code, ver. 4
100	110	0,20	34312	BMT1010	BMT1010HDZ	BMT1010INOX	BMT1010ZL
150	160	0,25	34313	BMT1015	BMT1015HDZ	BMT1015INOX	BMT1015ZL
200	210	0,31	34314	BMT1020	BMT1020HDZ	BMT1020INOX	BMT1020ZL
300	310	0,42	34315	BMT1030	BMT1030HDZ	BMT1030INOX	BMT1030ZL
400	410	0,54	34316	BMT1040	BMT1040HDZ	BMT1040INOX	BMT1040ZL
500	510	0,65	34317	BMT1050	BMT1050HDZ	BMT1050INOX	BMT1050ZL

## Metal holders

### BHL cable cleat (for trays/profiles)


**Purpose:**

- fastening to ladder tray.

**Characteristics:**

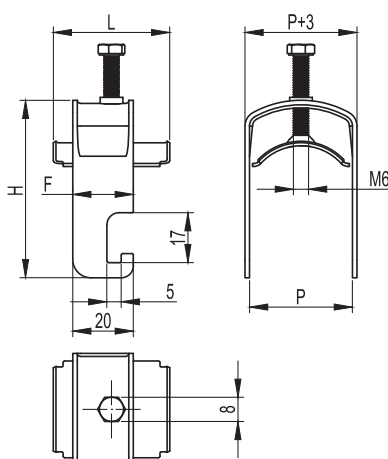
- fastening of cables from 8 to 74 mm.

**Note:**

- can be fixed to C-shaped profile.

Diameter, mm	Steel thickness, mm	F, mm	Height H, mm	Width P, mm	Weight, kg	Code
8-14	1,5	19	49	16	0,03	BHL0814
14-20	1,5	19	54	22	0,04	BHL1420
20-26	1,5	19	60	28	0,04	BHL2026
26-32	1,5	19	66	34	0,05	BHL2632
32-38	1,5	19	77	40	0,06	BHL3238
38-44	1,5	19	83	46	0,06	BHL3844
44-50	2,5	24	89	52	0,11	BHL4450
50-56	2,5	24	95	58	0,13	BHL5056
56-63	2,5	24	100	64	0,14	BHL5662
62-68	2,5	24	107	70	0,15	BHL6268
68-74	2,5	24	113	76	0,16	BHL6874

### BHP cable cleat (for profiles)


**Purpose:**

- fastening of cables to C-shaped profiles BPL-21, BPL-41, BPM-21, BPM-41, BPD-41, BPD-21 and brackets from C-shaped profile (BBP-21, BBP-41, BBD-21).

**Characteristics:**

- fastening of cables from 8 to 74 mm.

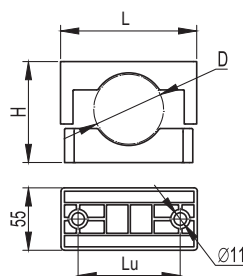
Diameter, mm	Steel thickness, mm	F, mm	Height H, mm	Width P, mm	Weight, kg	Code
8-14	1,5	19	49	16	0,03	BHP0814
14-20	1,5	19	54	22	0,04	BHP1420
20-26	1,5	19	60	28	0,04	BHP2026
26-32	1,5	19	66	34	0,05	BHP2632
32-38	1,5	19	77	40	0,06	BHP3238
38-44	1,5	19	83	46	0,06	BHP3844
44-50	2,5	24	89	52	0,12	BHP4450
50-56	2,5	24	95	58	0,13	BHP5056
56-63	2,5	24	100	64	0,14	BHP5662
62-68	2,5	24	107	70	0,15	BHP6268
68-74	2,5	24	113	76	0,16	BHP6874

## Solutions for driving of medium and high voltage cables

To drive power cables of 10-35 kW, 110-220 and 500 kW special fixing devices have been designed. They comply with high safety requirements, easy for installation and made of ecological and brand-new materials. Together with other "B5 Combitech" components these fixing devices permit to construct cable lines of any difficulty and at any angle.

The cables 10-35 kW and 110-220 kW are widely used for transition and distribution of electric power especially in big cities and in industrial rooms with high level of energy consumption and load density.

### BHR-20 cable holder


**Purpose:**

- fixation of single- and multiple-core cables.

**Mounting conditions:**

- inside the premises or in open air.

**Distinctive features:**

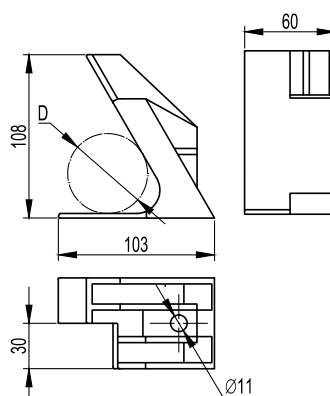
- made of high-impact reinforced polymer.

**Characteristics:**

- cable diameter – from 25 to 60 mm;
- operation temperature – from -60 to + 150 °C.

Diameter D, mm	Max height H, mm	Length L, mm	Length Lu, mm	Weight, kg	Code
25-40	70	90	60	0,14	BHR2004
40-60	95	120	90	0,20	BHR2006

### BHR-10 cable holder


**Purpose:**

- fixation of all medium voltage cables and single-core cables of high voltage while laying in line or delta.

**Mounting conditions:**

- inside the premises or in open air.

**Distinctive features:**

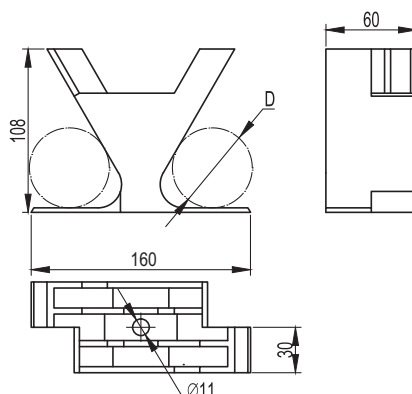
- made of high-impact reinforced polymer.

**Characteristics:**

- cable diameter – from 30 to 40 mm;
- resistance to dynamic loads – 10 kN;
- operation temperature – from -60 up +150 °C.

Diameter D, mm	Weight, kg	Code
30-40	0,22	BHR1004

### BHR-10 cable holder


**Purpose:**

- fixation of all medium voltage cables and single-core cables of high voltage when lied in line or delta.

**Mounting conditions:**

- inside the premises or in open air.

**Distinctive features:**

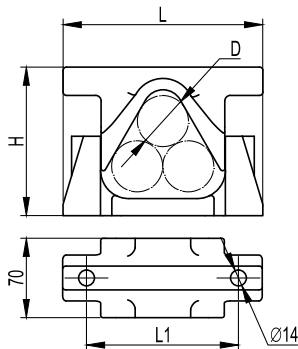
- made of high-impact reinforced polymer.

**Characteristics:**

- cable diameter – from 30 to 40 mm;
- resistance to dynamic loads – 10 kN;
- operation temperature – from -60 to + 150 °C.

Diameter D, mm	Weight, kg	Code
30-40	0,20	BHR1104

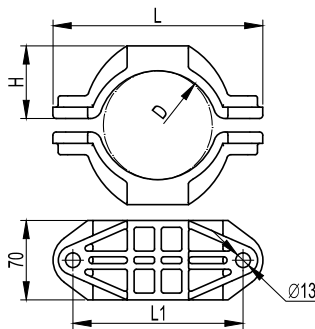
BHR-35 cable holder



- Purpose:**
- mounting of delta triple circuit lines of medium voltage cables.
- Mounting conditions:**
- inside the premises or in open air.
- Distinctive features:**
- made of high-impact reinforced polymer.
- Characteristics:**
- cable diameter – from 35 to 70 mm;
  - resistance to dynamic loads – 35 kH;
  - operation temperature – from -60 to + 150 °C.

Diameter D, mm	Width L, mm	Width L1, mm	Max height H, mm	Weight, kg	Code
35-55	176	134	150	0,63	BHR3505
40-70	213	173	190	1	BHR3507

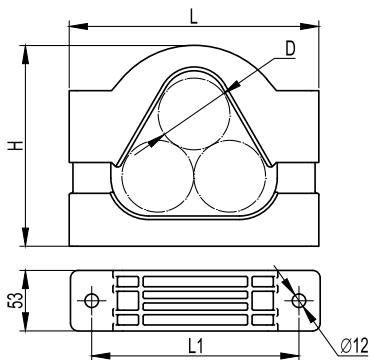
BHR-20 cable holder



- Purpose:**
- fixation of power single-phase cables of 110-220, 500 kW voltage classes.
- Mounting conditions:**
- inside the premises or in open air.
- Distinctive features:**
- made of high-impact reinforced polymer.
- Characteristics:**
- cable diameter – from 65 to 150 mm;
  - resistance to dynamic loads – 20 kH;
  - operation temperature – from -60 to + 150 °C.

Diameter D, mm	Width L, mm	Width L1, mm	Height H, mm	Weight, kg	Code
65-90	175	140	50	0,37	BHR2009
85-105	185	150	64	0,45	BHR2010
100-125	204	170	67	0,47	BHR2012
125-150	234	200	81	0,60	BHR2015

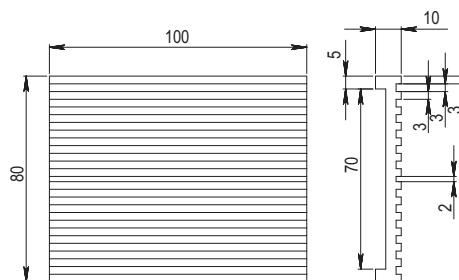
BHR-40 cable holder



- Purpose:**
- fixation of power single-phase cables of 110-220, 500 kW voltage classes.
- Mounting conditions:**
- inside the premises or in open air.
- Distinctive features:**
- made of high-impact reinforced polymer.
- Characteristics:**
- cable diameter – from 65 to 150 mm;
  - resistance to dynamic loads – 20 kH;
  - operation temperature – from -60 to + 150 °C.

Diameter D, mm	Width L, mm	Width L1, mm	Max height H, mm	Weight, kg	Code
65-90	290	234	260	2,42	BHR4009
85-110	330	274	296	3,08	BHR4011
110-135	380	324	335	3,47	BHR4013



**BHR-80 heat-resistant silicone pad for cable holders**

**Purpose:**

- to prevent cable slipping while laying on vertical sections

**Characteristics:**

- manufactured from fire-resistant material;
- dielectric strength –18–20 kV/mm;
- ordered in meters, taking into account 0.2 meter-long flow per one fixation BHR-20, 0.3 meter per one fixation BHR-35, 0.4 meter per one fixation BHR-40.

Weight, kg/m	Code
0,58	BHR8010

**Recommended kit for cable holders fastening to C-shaped profiles and brackets on base of C-shaped profiles**

Cable holder	Description	Quantity, pcs.	Code
BHR2004, BHR2006	pin* M10x1000	1	CM201001
	M10x40 nut for profile suspension	2	CM141000
	M10 bodywork washer DIN9021	2	CM121000
	M10 preventing loosening knurled nut	4	CM101000
BHR1004, BHR1104	pin* M10x100	1	CM201010
	M10x40 nut for profile suspension	1	CM141000
	M10 bodywork washer DIN9021	1	CM121000
	M10 preventing loosening knurled nut	2	CM101000
BHR3505, BHR3507	pin* M10x1000	1	CM201001
	M10x40 nut for profile suspension	2	CM141000
	M10 bodywork washer DIN9021	2	CM121000
	M10 preventing loosening knurled nut	4	CM101000
BHR2009, BHR2010, BHR2012, BHR2015	pin* M10x1000	1	CM201001
	M10x40 nut for profile suspension	2	CM141000
	M10 bodywork washer DIN9021	2	CM121000
	M10 preventing loosening knurled nut	4	CM101000
BHR4009, BHR4011, BHR4013	pin* M10x1000	1	CM201001
	M10x40 nut for profile suspension	2	CM141000
	M10 bodywork washer DIN9021	2	CM121000
	M10 preventing loosening knurled nut	4	CM101000

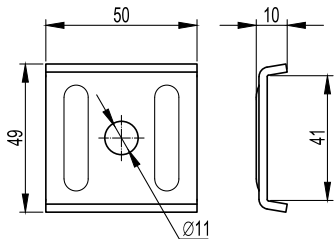
\* Pin should be cut into sections of required length

Solutions for laying of engineering services

Besides mounting elements of cable systems, "B5 Combitech" offers broad options to create supporting constructions for different engineering services (water supply system, heating, ventilation, air-conditioning etc.).

The universality and compatibility of all system elements permits without difficulty to suit any task reducing expenses and accelerating time for installation.

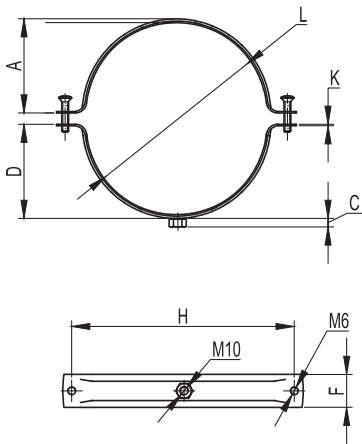
BHM-41 supporting plate for C-shaped profiles



- Purpose:**
- fixation of M10 pin on C-shaped profile.
- Characteristics:**
- 1 hole for M10 metalware on the base;
  - steel thickness – 2 mm.
- Note:**
- compatible with all types of C-shaped profiles: BPL-21, BPL-41, BPM-21, BPM-41, BPD-21, BPD-41.

Weight, kg	Code ver. 1
0,06	BHM4141

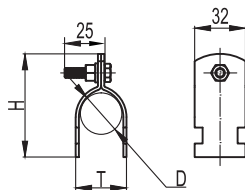
BHT-30 clip for heavy loads



- Purpose:**
- mounting of water-supply, heating, gas-supply pipes, as well as pipes for industrial usage.
- Mounting conditions:**
- inside the premises, in open air under tents.
- Distinctive features:**
- mounting to ceiling, walls, into C-shaped profiles and brackets of C-shaped sections.
- Characteristics:**
- pipes diameter – from 50 to 400 mm;
  - operation temperature – from –40 to +90 °C;
  - maximum static load for suspended mounting – 350 kg;
  - maximum static load for side mounting – 175 kg.

Max diameter L, mm	Height A, mm	Height D, mm	Width H, mm	K, mm	C, mm	F, mm	Code ver. 1
50	24,8	24,8	75,8	2,4	11	29	BHT3050
63	31,6	31,6	88,9	2,4	11	29	BHT3063
75	39,3	39,3	110,9	2,4	11	29	BHT3075
80	40,0	40,0	109,2	2,4	11	29	BHT3080
90	44,4	44,4	120,0	2,4	11	29	BHT3090
100	51,0	51,0	131,3	2,4	11	29	BHT3100
110	55,5	55,5	141,7	2,4	11	29	BHT3110
125	63,4	63,4	157,1	2,4	11	29	BHT3125
130	64,5	64,5	162,5	2,4	11	29	BHT3130
140	67,3	67,3	173,4	2,4	11	29	BHT3140
160	77,0	77,0	190,9	2,4	11	29	BHT3160
200	98,2	98,2	240,5	2,4	11	29	BHT3200
250	125,0	125,0	277,7	2,4	11	29	BHT3250
315	150,3	150,3	367,3	2,4	11	29	BHT3315
350	176,0	176,0	376,0	2,4	11	29	BHT3350
400	196,0	196,0	429,0	2,4	11	29	BHT3400

### BHT-15 dismountable clip


**Purpose:**

- mounting of water-supply, heating, gas-supply pipes, as well as pipes for industrial usage.

**Mounting conditions:**

- inside the premises, in open air under tents.

**Distinctive features:**

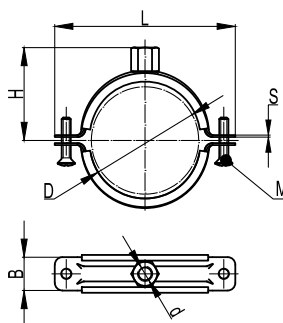
- mounting into C-shaped profile and brackets of C-shaped profile.

**Characteristics:**

- pipe diameter – from 1/2 to 5";
- operation temperature – from –40 to +90 °C.

D min, mm	D max, mm	Height H, mm	T, mm	Code
20,3	22	60	24,3	BHT1505
25,7	27	65	29,7	BHT1508
32,4	34	77	36,4	BHT1510
41,2	43	87	45,2	BHT1512
47,4	49	92	51,4	BHT1515
59,5	61	102	63,5	BHT1520
72,2	76	118	76,2	BHT1525
87,9	89	140	91,9	BHT1530
113	115	165	117	BHT1540
139	142	186	143	BHT1550

### BHT-20 clip with insulation for average loads


**Purpose:**

- mounting of water-supply, heating, gas-supply pipes, as well as pipes for industrial usage;

- inside the premises, in open air under tents.

**Distinctive features:**

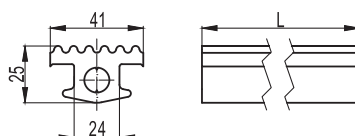
- mounting to ceiling, walls, into C-shaped profiles and brackets of C-shaped sections.

**Characteristics:**

- pipe diameter – from 12 to 220 mm;
- operation temperature – from –40 to +90 °C;
- maximum static load for suspended mounting – 200 kg;
- maximum static load for side mounting – 100 kg.

Max diameter D, mm	Height H, mm	Width L, mm	Width B, mm	M, mm	S, mm	d	Code
16	18	54	20	M6x18	2	M8	BHT2014
19	19,8	59	20	M6x18	2	M8	BHT2038
25	22	64	20	M6x18	2	M8	BHT2012
30	25	70	20	M6x18	2	M8	BHT2034
36	28	77	20	M6x18	2	M8	BHT2100
42	30,7	82	20	M6x18	2	M8	BHT2114
51	35	91	20	M6x18	2	M10	BHT2112
64	41,5	103	20	M6x18	2	M10	BHT2200
80	49,5	114	25	M6x18	2	M10	BHT2212
92	57,7	132	25	M6x18	2	M10	BHT2300
118	70,5	158	25	M6x25	2	M10	BHT2400
142	83,5	183	25	M6x25	2	M10	BHT2500
166	95,5	204	25	M6x25	2	M12	BHT2600
220	118	262	25	M6x25	2	M12	BHT2800

### BHT-41 noise-attenuating pillow into profile


**Purpose:**

- acoustic insulation for air ducts mounting.

**Note:**

- compatible with C-shaped profiles: BPL-41, BPM-41, BPD-41.

Weight, kg/m	Code
0,63	BHT4125

## Universal support structures

### Area of application

These structures serve like supports for laying of cables as well as for different engineering services. In contrast with the existing DKC cable and combined trestles, support structures are made of high corrosion-resistant, hot-galvanized materials. All elements are joined with bolts, this excludes welding at all. One more advantage of "B5 Combitech" support structures is the compatibility of its elements that makes it possible to develop system for any task. All the above mentioned helps to increase considerably the operation life of the system, significantly reduces expenses and time for installation.



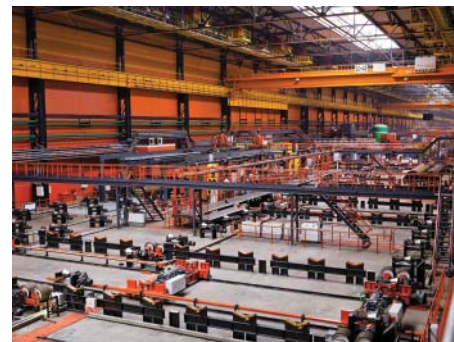
#### Within factories

Cable and combined trestles within factories



#### Urban and municipal construction

Street supports of the engineering services



#### Inside workshops

Supports for internal communications

## Advantages

#### Light construction

- Weight 35–70 kg
- load reduction on the foundation

#### Quick assembling

- Modular construction
- No welding
- Bolt connection

#### Compatibility

with all DKC metal systems

#### Easy mounting

- Oval and round perforation;
- C-shaped profile, 41 x 41

#### High solidity

Summary load up to 600 kg/m

#### Durability

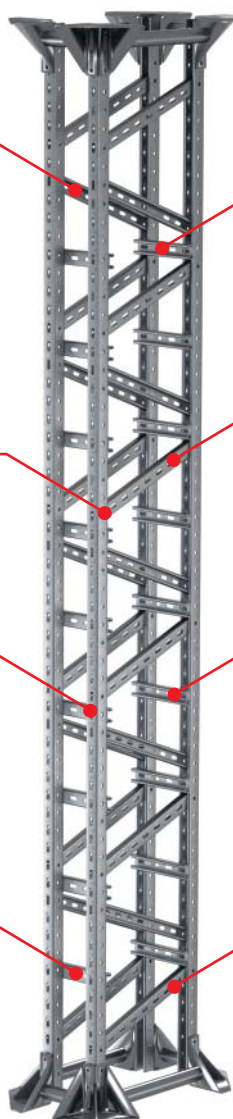
Operation life up to 30 years

#### Safe protection

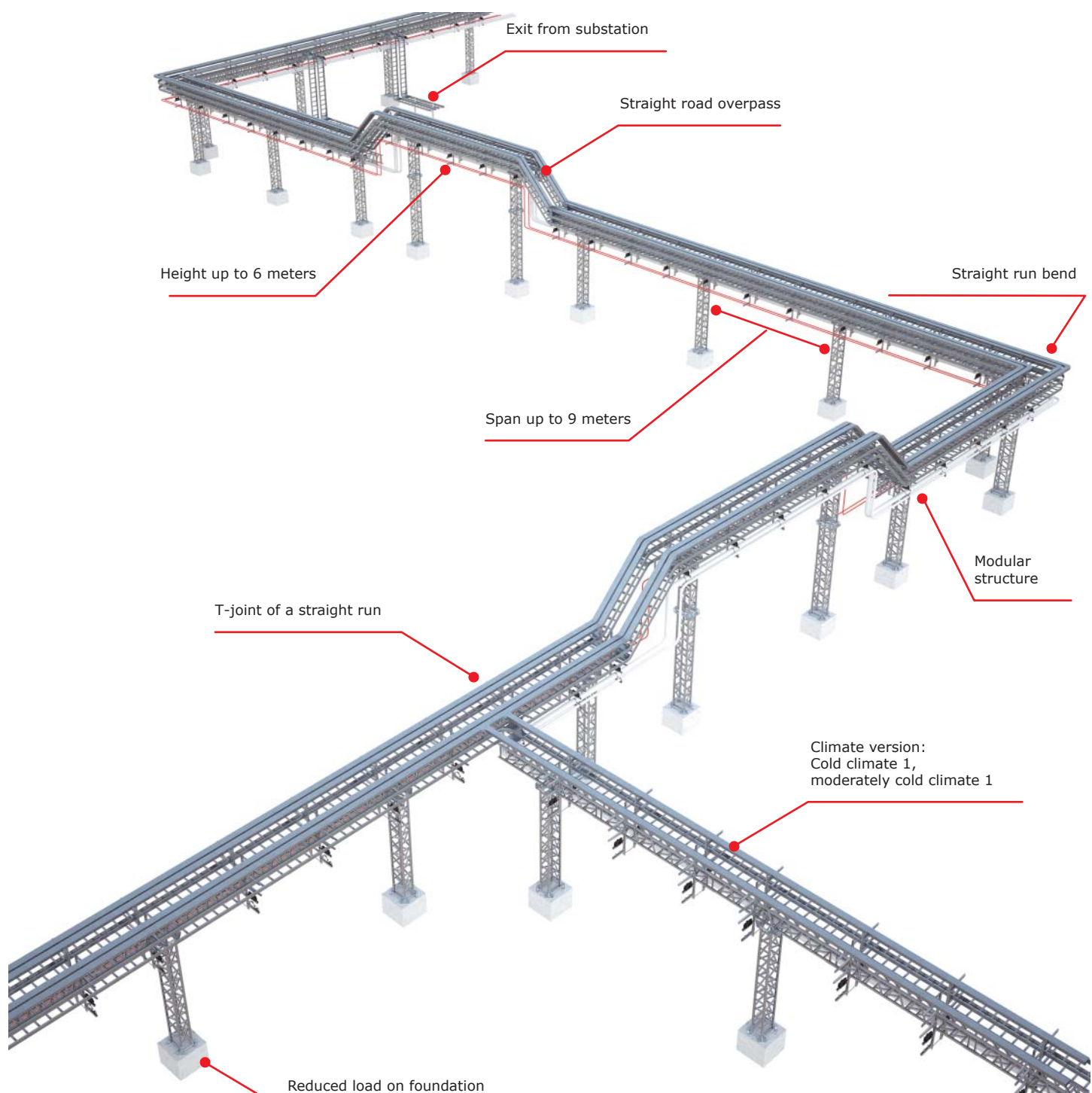
Hot galvanized or zinc-lamellar coated steel

#### Extreme environmental conditions

- snow region up to VII level,
- wind region up to VIII level.
- area type: A according to Building Code
- Climate version and placement category NF1, NF5

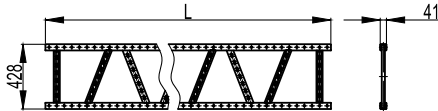


## System components



System elements

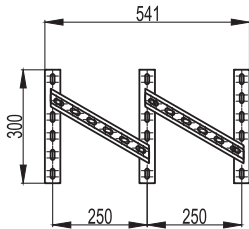
BTL-20 side part of support structure (of cable tray system)



- Purpose:**
- side part for vertical support structure (support of cable tray system);
  - side part for horizontal support structure (girder of cable tray system).

Length, L	Weight, kg	Code ver. 2
950	7,3	BTL2009HDZ
1700	14,3	BTL2017HDZ
2450	18,9	BTL2025HDZ
3200	24,7	BTL2032HDZ
3950	30,5	BTL2040HDZ

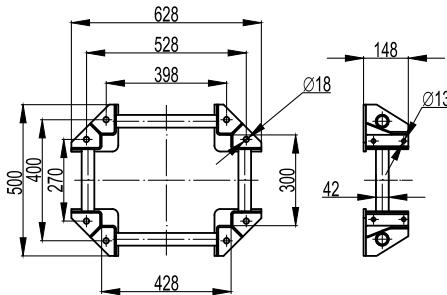
BTL-20 connector of support structure side parts (of cable tray system)



- Purpose:**
- connector of side parts for vertical support structure (support of cable tray system);
  - connector of side parts for horizontal support structure (girder of cable tray system).

Weight, kg	Code ver. 2
2,8	BTH2030HDZ

BTG-20 base of support structure

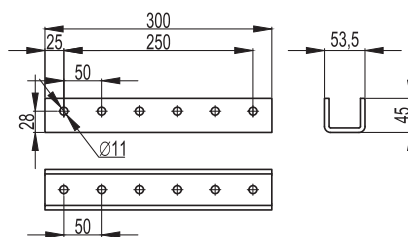


- Note 1:**
- fixation of BTL-20 support structure to foundation;
  - connection of vertical sections of BTL-20 support structures;
  - connection with horizontal sections.
- Note 2:**
- BTM8825 metalware is used to connect the bases;
  - BTM8820 metalware is used to fix to support structure.

Weight, kg	Code ver. 2
12,3	BTG2001HDZ



## BPN-41 connector for support structure



### Note 1:

- connection of horizontal sections of BTL-20 support structures (girder of cable tray system).

### Note 2:

- 4 connectors are required to connect 2 parts;
- BTM8841 metalware is used to fix to BTL-20 support structure.

Weight, kg	Code ver. 2
1,75	BPN4130HDZ

## Metalware for BTG-20 support structure (cable tray system)

Description	Weight, kg	Code
Metalware to connect rack to girder of cable tray system	2,0	BTM8806
Metalware to assembly BTL-201700 mm support structure	2,0	BTM8815
Metalware to connect base	2,7	BTM8820
Metalware to connect girder	1,0	BTM8841
Metalware to connect columns of cable tray system	3,0	BTM8825
Metalware to assemble dual column of BTL-20 support structure (cable tray system)	1,0	BTM8816
Set of clips to connect columns of BTL-20 support structure ( cable tray system) with girder	3,5	BHU2010

## Support structures configuration examples

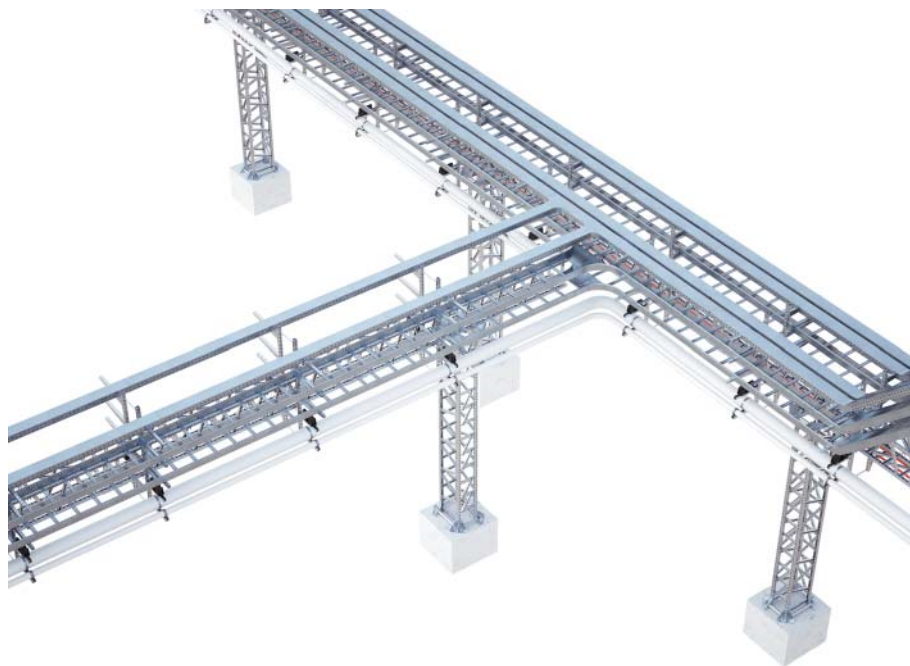
### Straight run



### Parameters:

- run length – 6,4 m;
- run height – 3,2 m;
- max trays number – 8 pcs.  
(4 trays from every side of the girder);
- max tray width – 600 mm;
- summary max load – 200 kg/m.

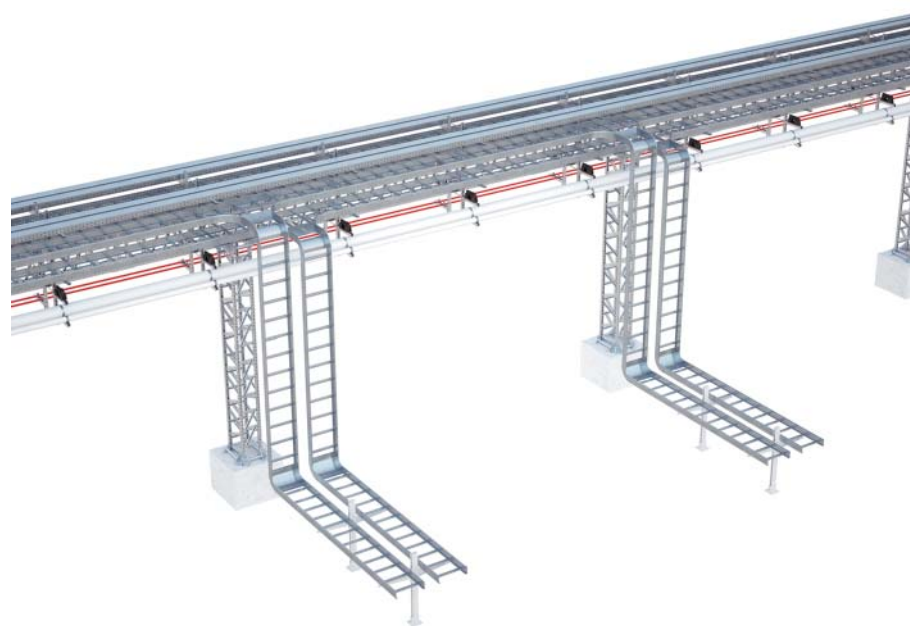
### T-branch



**Parameters:**

- run length – 6,4 m;
- run height – 3,2 m;
- max trays number: 8;
- max tray width – 600 mm;
- summary max load – 200 kg/m.

### Exit from substation (from below)

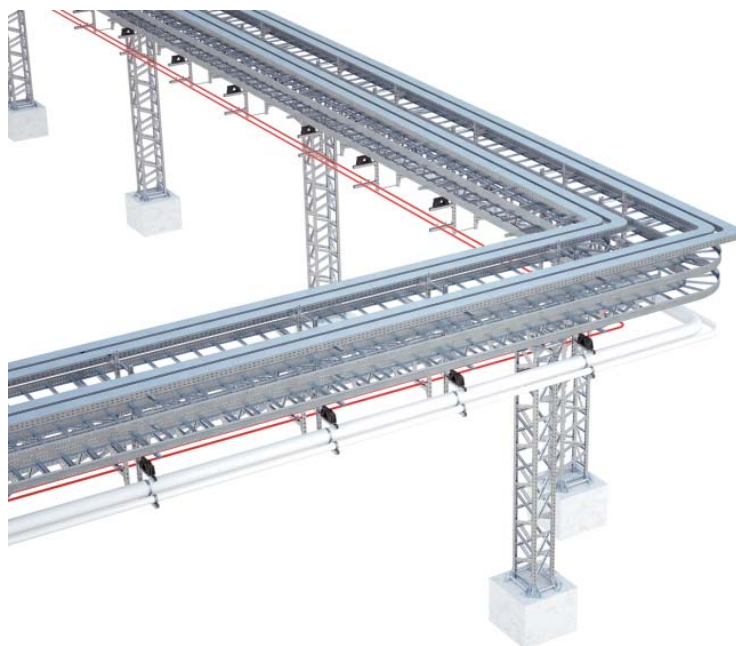


**Parameters:**

- run length – 6 m;
- run height – 3 m;
- max trays number – 12;
- max tray width – 600 mm;
- height difference up to 0 m;
- summary max load – 356 kg/m.



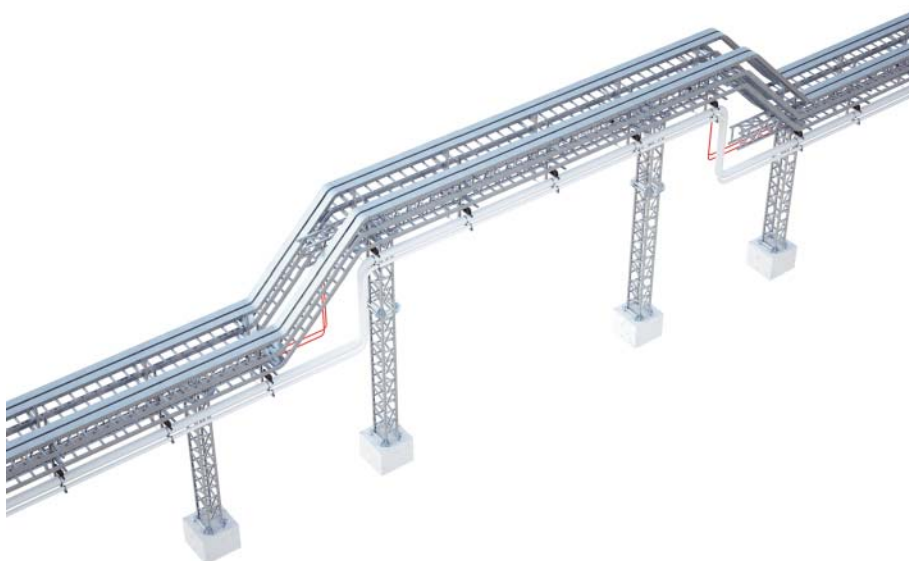
## 90° bend of straight run



### Parameters:

- run length – 6 m;
- run height – 3 m;
- max trays number – 12;
- max tray width – 600 mm;
- summary max load – 356 kg/m.

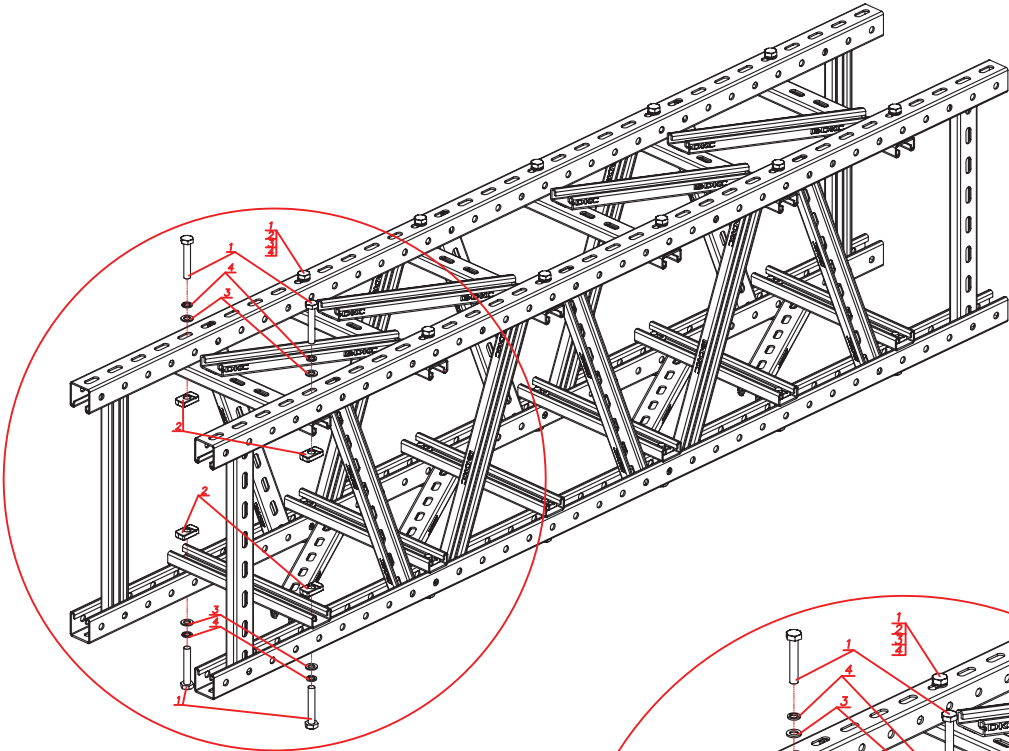
## Straight road overpass



### Parameters:

- run length – 6 m;
- run height – 6 m;
- max trays number – 6;
- max tray width – 600 mm;
- height difference up to 6 m;
- summary max load – 200 kg/m.

Assembly of vertical or horizontal support

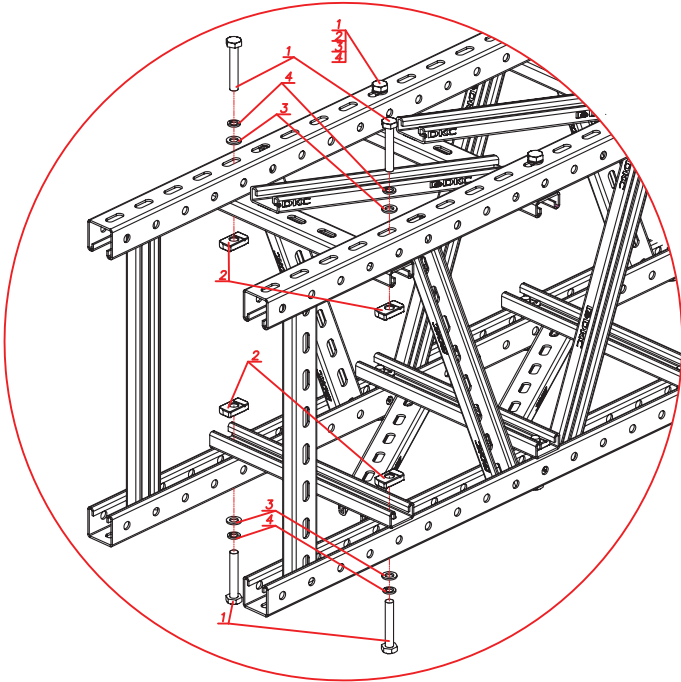


L=3200 mm

1	Bolt M10x60	48
2	Nut M10	48
3	Washer 10	48
4	Washer 10 r	48

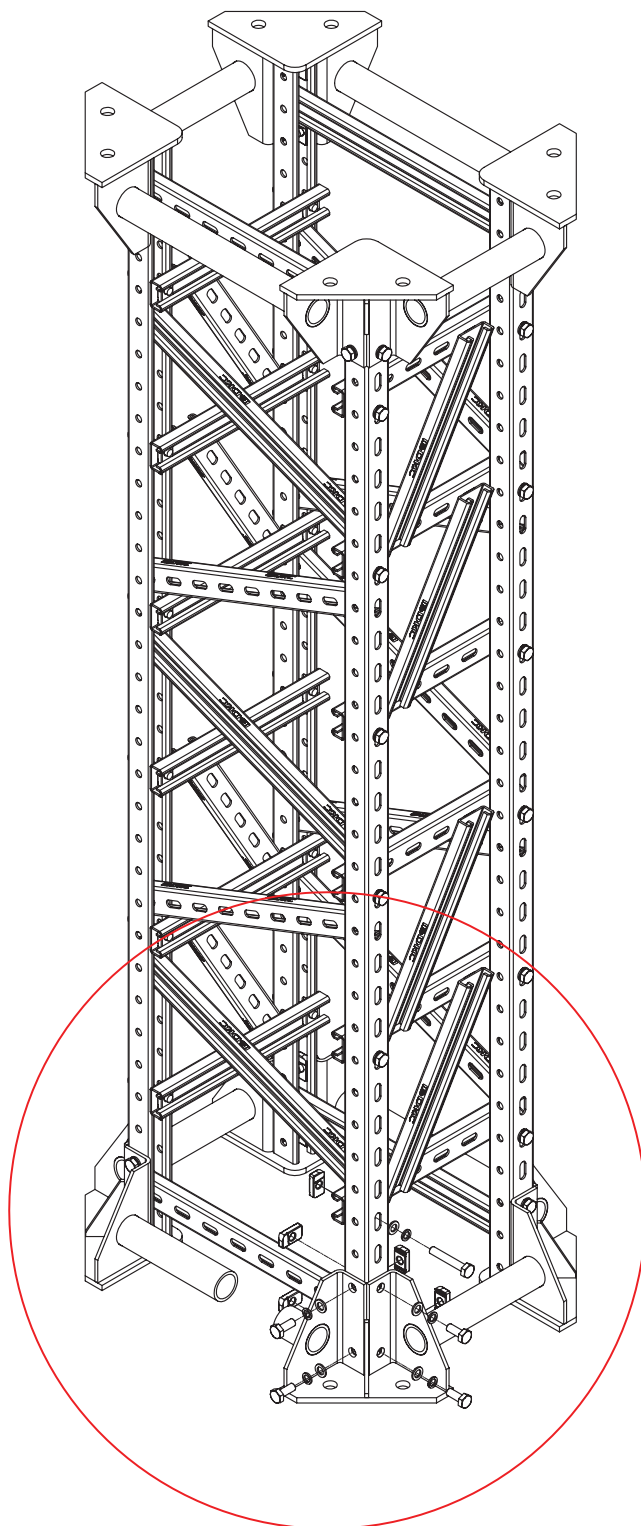
L=1700 mm

1	Bolt M10x60	24
2	Nut M10	24
3	Washer 10	24
4	Washer 10 r	24





Purpose	Description	Quantity, pcs.	Length L, mm	Width H, mm	Summary weight, kg	Composition, ver. 2
Set to assembly vertical support	side part of support structure	2	1700	300	400	BTL2017HDZ
	connector of side parts	4	1700	300	400	BTH2030HDZ
	metalware to assembly support structure	1	1700	300	400	BTM8815
	side part of support structure	2	3200	300	80,0	BTL2032HDZ
	connector of side parts	8	3200	300	80,0	BTH2030HDZ
	metalware to assembly support structure	2	3200	300	80,0	BTM8815
Set to assembly horizontal support	side part of support structure	2	1700	300	40,0	BTL2017HDZ
	connector of side parts	4	1700	300	40,0	BTH2030HDZ
	metalware to assembly support structure	1	1700	300	40,0	BTM8815
	side part of support structure	2	3200	300	80,0	BTL2032HDZ
	connector of side parts	8	3200	300	80,0	BTH2030HDZ
	metalware to assembly support structure	2	3200	300	80,0	BTM8815




## Fastening of base to vertical column

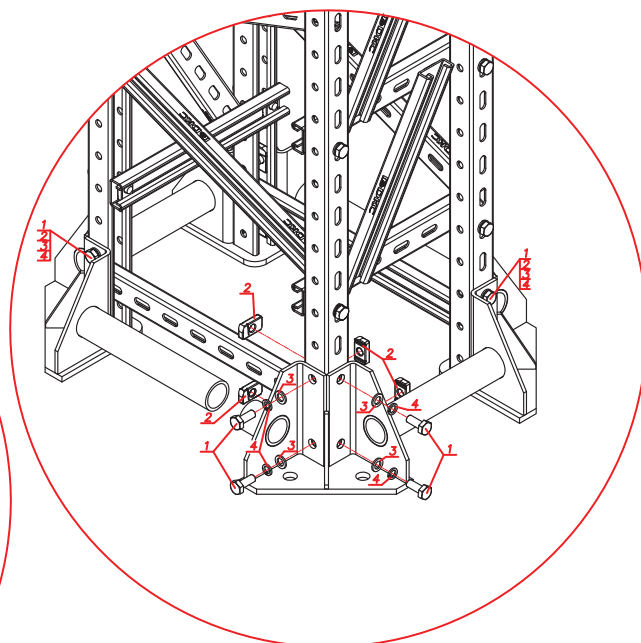


*L=1700 mm*

1		Bolt M10x25	32
2		Nut M10	32
3		Washer 10	32
4		Washer 10 r	32

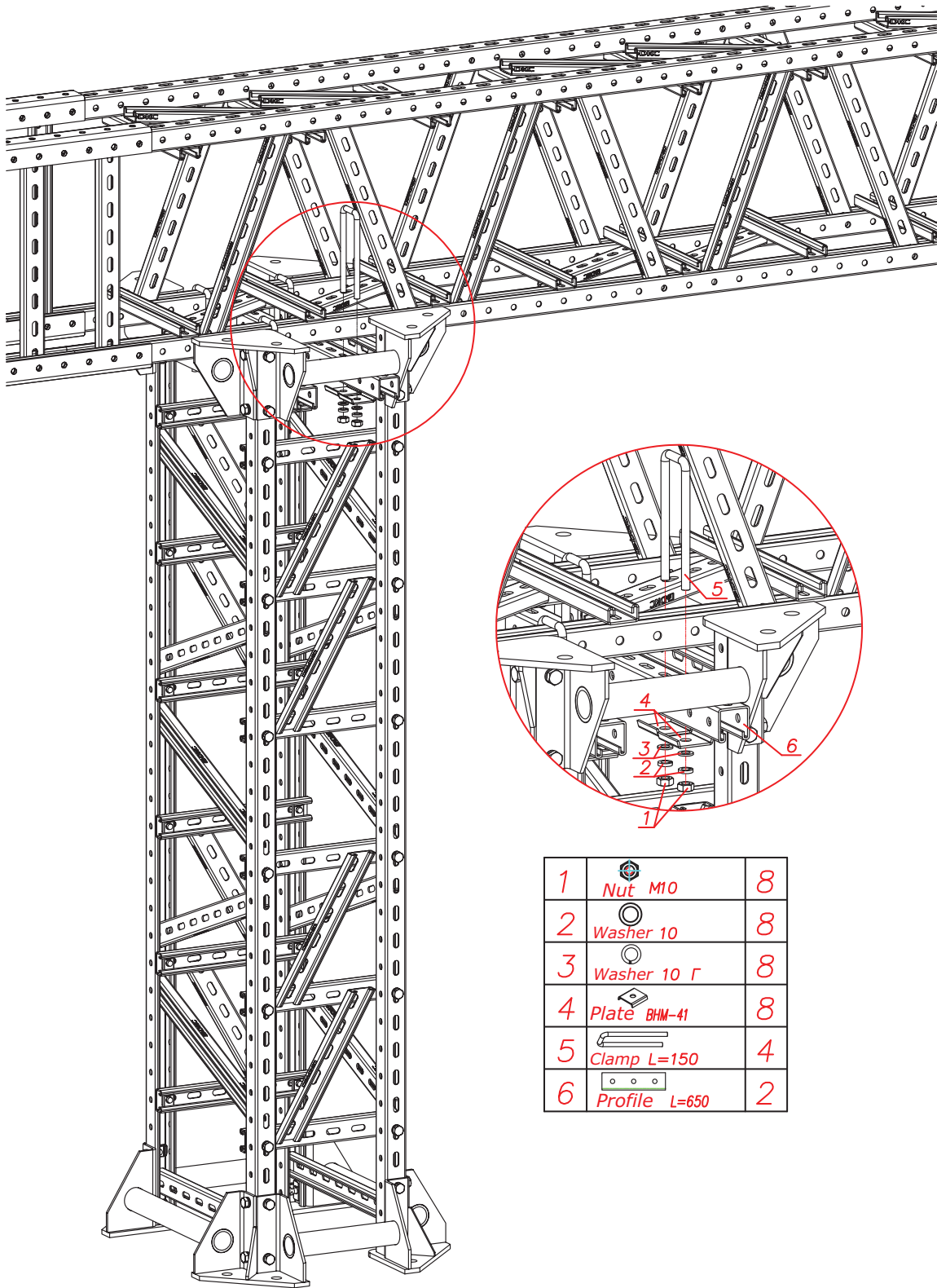
*L=3200 mm*

1		Bolt M10x25	32
2		Nut M10	32
3		Washer 10	32
4		Washer 10 r	32



Purpose	Description	Quantity, pcs.	Length L, mm	Width H, mm	Summary weight, kg	Composition, ver. 2
Set for rigid connection	base of supporting structure	2	1700	428	54,6	BTG2001HDZ
	metalware for base connection	1	1700	428	54,6	BTM8820
	base of supporting structure	2	3200	428	104,6	BTG2001HDZ
	metalware for base connection	1	3200	428	104,6	BTM8820

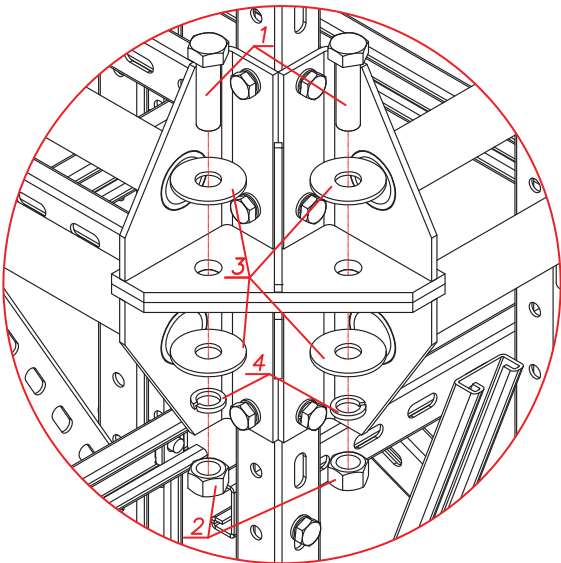
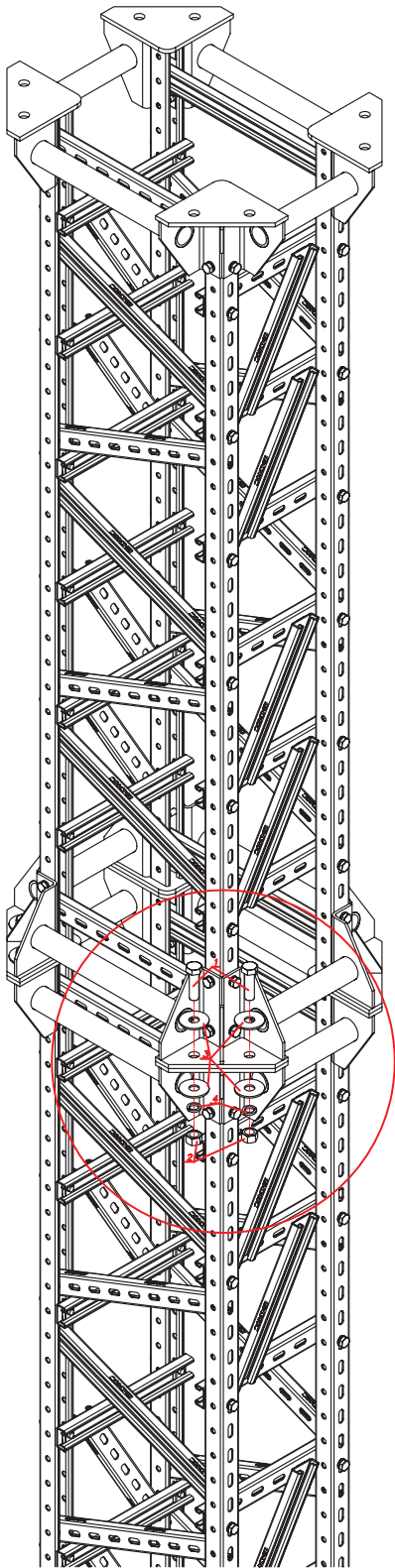
Connection of vertical column of horizontal profile







Purpose	Description	Quantity, pcs.	Length L, mm	Width H, mm	Composition, ver. 2
Set for girder fastening to column	metalware for columns connection	1	1700	200	BHU2010
	metalware for columns connection	1	3200	200	BHU2010



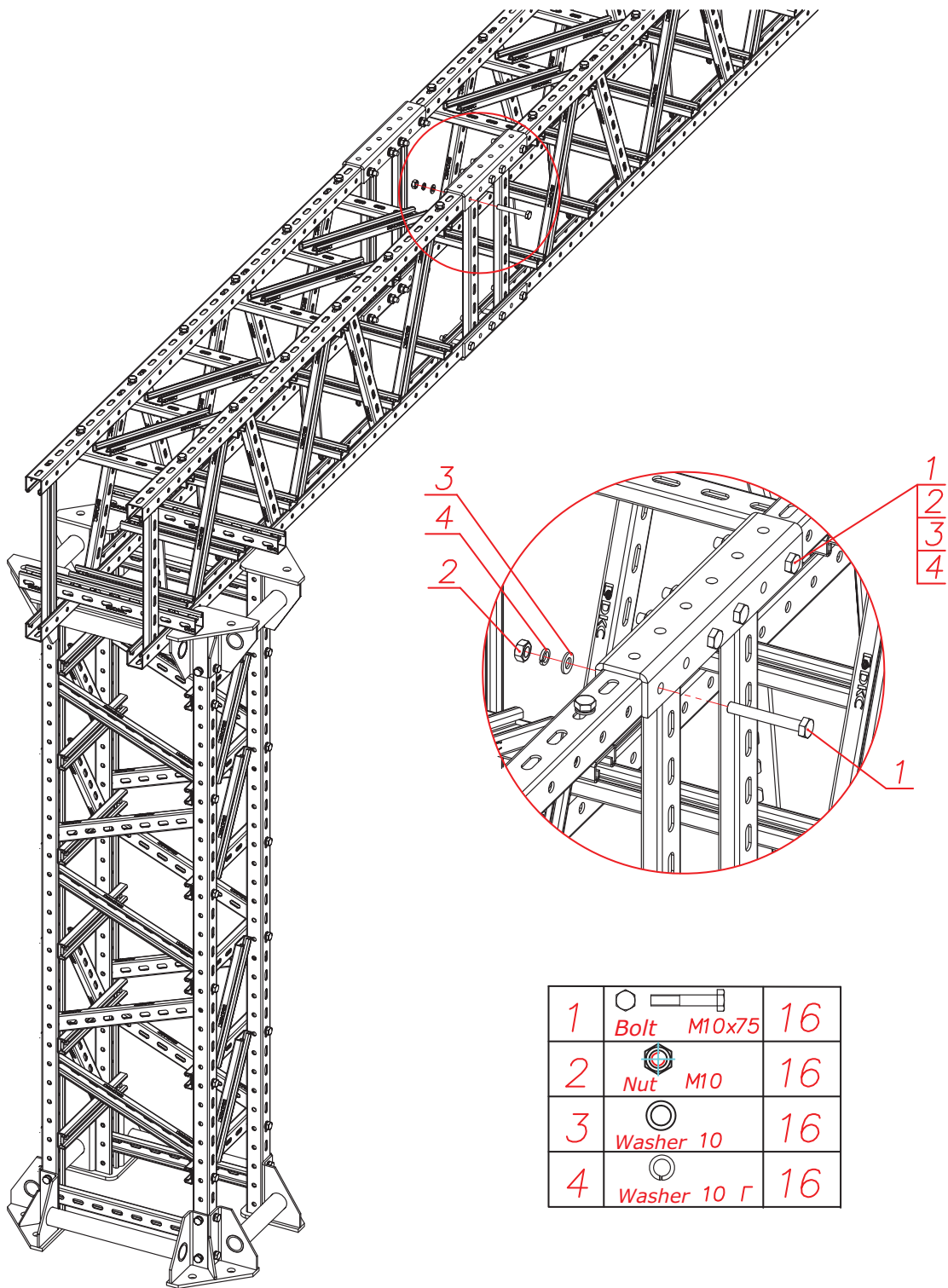
**Connection of vertical columns**







1	 Bolt M6x50	8
2	 Nut M6	8
3	 Washer 16	16
4	 Washer 16 r	8

Purpose	Description	Quantity, pcs.	Length L, mm	Width H, mm	Composition, ver. 2
Set for columns connection	metalware for columns connection	1	1700	428	BTM8825
	metalware for columns connection	1	3200	428	BTM8825

Connection of girders

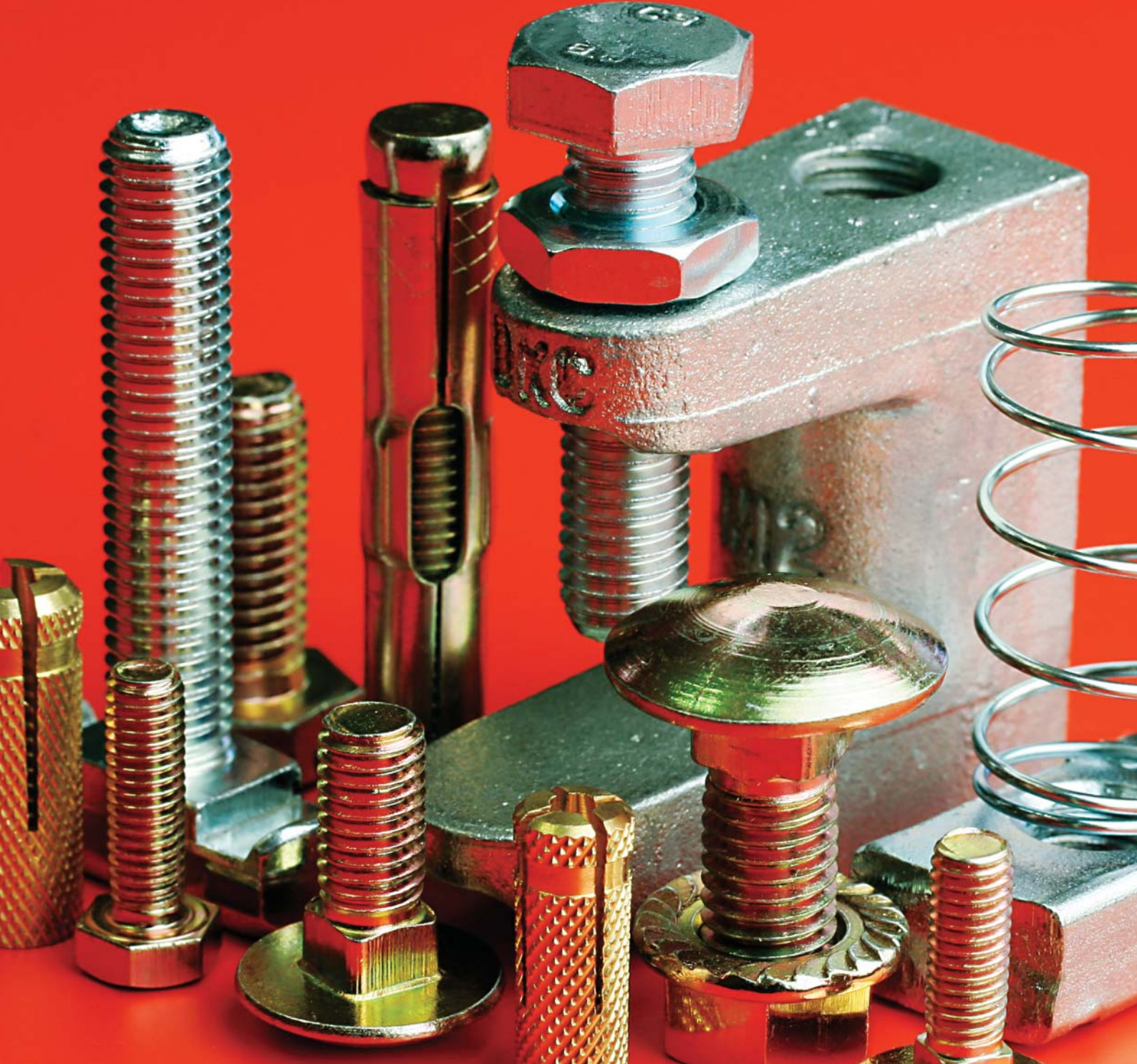


1	 Bolt M10x75	16
2	 Nut M10	16
3	 Washer 10	16
4	 Washer 10 Г	16

Purpose	Description	Quantity, pcs.	Length L, mm	Width H, mm	Composition, ver. 2
Set for girder connection	supporting structure connector	4	1700	428	BPN4130HDZ
	metalware for girder connection	1	1700	428	BTM8841
	supporting dtructure connector	4	1700	428	BPN4130HDZ
	metalware for girder connection	1	1700	428	BTM8841







## Fasteners "M5 Combitech"

Fastening system .....	288
Metric fasteners (bolts, screws, nuts, washers, studs) .....	289
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## Fastening system "M5 Combitech"

### Area of application

"M5 Combitech" is a universal system designed for construction of cable raceways on the base of metal trays and DKC mounting elements. The wide range of standard and special fastening elements permits to meet customers' requirements depending on mounting and operational conditions of cable line.



#### Business property

Mounting of cable lines mainly on the base of sheet and ladder trays. Fixation to the mounting constructions, floor, walls and ceiling



#### Industrial facilities

Depending on operational conditions the fasteners are used both for connection of elements in cable lines and for mounting of specialized constructions. Fasteners are fixed to profiles, channels and decking



#### Food and chemical plants

Mounting of the cable lines of corrosion-resistant steel. All the used fixing elements must be manufactured of stainless steel

### Advantages

"M5 Combitech" system has the following main advantages:

- delivery time – most common items are kept in stock in sufficient amount;
- the wide assortment of the fasteners considerably simplifies the task of the installation of the mounting elements depending on the required bearing capacity of the line and the material of the buildings;
- high quality of fastening – each lot is subjected to quality control in the manufacturing plant and directly upon receipt on DKC warehouse.
- compact package reduces transportation costs and accelerates time for mounting;
- different versions of the fasteners make it possible to mount the cable management systems in a proper way taking into consideration the operational conditions;
- compatibility – it's always possible to pick up an analog to missing positions if it's necessary to deliver products directly from warehouse.

### Generation of codes

#### Galvanized steel (standard version)

For fasteners of "Galvanized steel" no additional letter or mark will be added to the product code.

Example of M6x10 stud with cross slot in "Galvanized steel" version: CM010610

#### Hot-dip galvanized steel (HDZ)

For fasteners of "Hot-dip galvanized steel" in special version the letters "HDZ" will be added to the standard product code.

Example of M6x10 stud with cross slot in "Hot-dip galvanized steel" version: CM010610HDZ

#### Stainless steel (INOX)

For fasteners of "Stainless steel" in special version the letters "INOX" or "INOX316L" will be added to the standard product code, depending on the type of stainless steel used for metalware manufacture.

Example of M6x10 stud with cross slot in "Stainless steel" version made of stainless steel of AISI304 (A2) type: CM010610INOX.

Example of M6x10 stud with semicylindrical head in "Stainless steel" version made of stainless steel of AISI316L (A4) type: CM090610INOX316L.

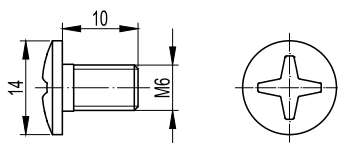
#### Zinc-lamellar coating (ZL)

For fasteners of "Zinc-lamellar coating" in special version the letters "ZL" will be added to the standard product code .

Example of the stud M8x2000 of "Zinc-lamellar coating" version: CM200802ZL.

## Metric fasteners

### Square neck bolt M6x10


**Purpose:**

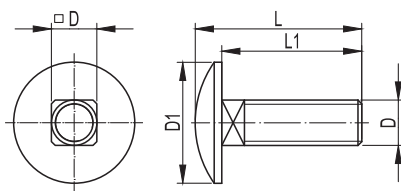
- connection of sheet or ladder trays, fixing of sheet and ladder trays to the mounting accessories.

**Characteristics:**

- 4,8 strength class for the version 1.

Description	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M6x10	200	0,90	CM010610	CM010610HDZ	CM010610INOX	CM010610INOX316L

### Mushroom head square neck bolt M6x16


**Purpose:**

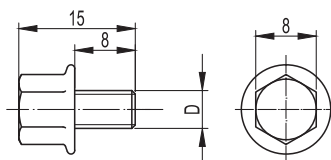
- connection of sheet or ladder trays, fixing of sheet and ladder trays to the mounting accessories.

**Characteristics:**

- 4,8 strength class for the version 1.

Description DxL1	L, mm	D1, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M6x16	19,88	16,55	100	0,60	CM010616	–	CM010616INOX	CM010616INOX316L
M6x20	23,88	16,55	100	0,74	CM010620	CM010620HDZ	–	–
M6x25	28,88	16,55	100	0,80	CM010625	–	–	–
M8x20	24,88	20,65	50	0,80	CM010820	–	–	–
M10x25	30,38	24,65	50	1,40	CM011025	–	–	–

### Hexagon flange bolt M5x8 for ensuring electrical contact between covers


**Purpose:**

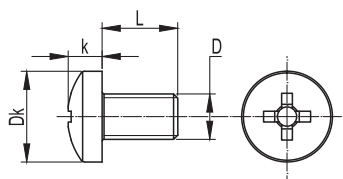
- overlap connection of tray's covers; ensure electric contact.

**Characteristics:**

- 4,8 strength class for the version 1.

Description Dx8	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3
M5x8	200	0,88	CM030508	CM030508HDZ	CM030508INOX
M6x8	200	1,24	CM030608	–	CM030608INOX

### Screw with semicylindrical head


**Purpose:**

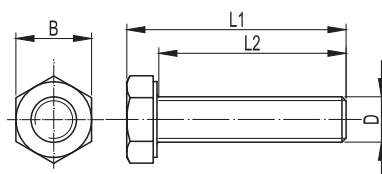
- connection of mounting elements.

**Characteristics:**

- 4,8 strength class for the version 1.

Description DxL	Dk, mm	k, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 3, AISI 316L
M6x10	12	4,6	200	1,0	CM090610	CM090610INOX316L
M6x20	12	4,6	200	1	–	CM090620INOX316L

## Hexagon bolt


**Purpose:**

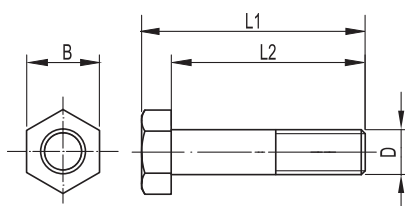
- connection of mounting elements, together with anchors – fixing of mounting constructions to walls, ceiling or floor.

**Characteristics:**

- 4,8 strength class for the version 1.

Description DxL2	L1, mm	B, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M4x16	18,8	7	200	0,38	CM080416	–	–	–
M5x20	23,5	8	100	0,40	CM080520	–	–	–
M6x8	12	10	200	0,80	CM020608	–	–	–
M6x12	16	10	200	1,00	CM020612	CM020612HDZ	–	–
M6x20	24	10	200	1,20	CM020620	CM020620HDZ	–	CM020620INOX316L
M6x25	29	10	100	0,70	CM080625	–	–	CM080625INOX316L
M6x45	49	10	100	1,20	CM080645	–	–	CM080645INOX316L
M8x16	21,3	13	100	1,10	CM020816	CM020816HDZ	CM020816INOX	CM020816INOX316L
M8x25	30,3	13	100	1,40	CM020825	–	–	–
M8x30	35,3	13	80	1,30	CM080830	–	CM080830INOX	CM080830INOX316L
M8x40	45,3	13	70	1,31	CM080840	–	–	–
M8x50	55,3	13	60	1,44	CM080850	–	–	–
M8x80	85,3	13	40	1,2	CM080880	CM080880HDZ	–	–
M10x25	31,4	17	50	1,25	CM021025	CM021025HDZ	–	–
M10x35	41,4	17	40	1,44	CM081035	CM081035HDZ	CM081035INOX	CM081035INOX316L
M10x40	46,4	17	40	1,56	CM081040	–	–	–
M10x50	56,4	17	50	1,85	CM021050	–	–	–
M10x60	66,4	17	30	1,38	CM081060	CM081060HDZ	–	–
M10x70	76,4	17	30	1,38	CM081070	–	–	–
M10x80	86,4	17	30	1,53	CM081080	CM081080HDZ	–	–
M10x90	96,4	17	30	1,68	CM081090	CM081090HDZ	–	–
M10x100	106,4	17	20	1,22	CM081010	–	–	–
M10x110	116,4	17	20	1,32	CM081011	–	–	–
M10x120	126,4	17	20	1,42	CM081012	–	–	–
M12x40	47,5	19	30	1,50	CM081240	CM081240HDZ	CM081240INOX	CM081240INOX316L
M12x80	87,5	19	20	1,40	CM081280	–	–	–
M14x40	48,8	22	20	1,56	CM081440	–	–	–
M16x45	55	24	15	1,50	CM081645	–	–	–
M16x60	70	24	15	1,65	CM081660	–	–	–

## Part thread hexagon head bolt


**Purpose:**

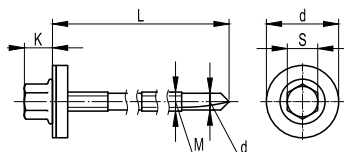
- bolt M8x60 fixes SML, SSC ceiling fasteners and ML, BM brackets to PSL, PSM profiles. Bolt M8x70 fixes SSM ceiling fasteners to PSL, PSM profiles.

**Characteristics:**

- 4,8 strength class for the version 1.

Description DxL2	L1, mm	B, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M8x60	65,3	13	50	1,3	CM020860	CM020860HDZ	–	CM020860INOX316L
M8x70	75,3	13	40	1,2	CM020870	CM020870HDZ	CM020870INOX	CM020870INOX316L

## Self-cutting screw with washer for fastening to sandwich panels



### Purpose:

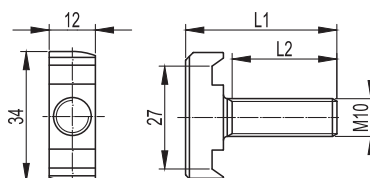
- fastening of lightning diverter strip and bearing structures to sandwich panels.

### Characteristics:

- drill no.: 5.

Diameter M, mm	Head diameter D // head diameter S, mm	Length L, mm	Fixing layers thickness, mm	Rotational speed of the drill, turnover/min	Tensile strength, kN	Shear strength, kN	Pcs. / pack.	Weight of pack, kg	Code, ver. 1
5,5	19/8	105	50-70	1000	11	7,8	50	0,95	CM273100
5,5	19/8	135	70-100	1000	11	7,8	50	1,00	CM273130
5,5	19/8	155	80-120	1000	11	7,8	50	1,00	CM273150
5,5	19/8	185	100-150	1000	11	7,8	100	2,90	CM273180

## Anchor head bolt



### Purpose:

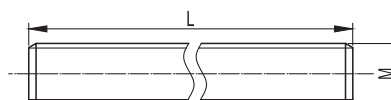
- fastening of heavy brackets to different types of C-shaped profile, to single and double suspensions. Allows fastening to traverses and brackets on base of C-shaped profile.

### Characteristics:

- 4,8 strength class for the version 1.

Description M10xL2	L1, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 3, AISI 316L
M10x30	40	50	2,10	CM041030	CM041030INOX316L
M10x50	60	50	2,60	CM041050	CM041050INOX316L

## Threaded rod



### Purpose:

- suspension of cable lines to ceiling.

### Characteristics:

- 4,8 strength class for the version 1.

Description MxL	L, m	Pcs./pack, m	Weight of pack, kg	Code, ver. 1	Code, ver. 3	Code, ver. 3, AISI 316L	Code, ver. 4
M6x1000	1	100	16,6	CM200601	CM200601INOX	CM200601INOX316L	-
M6x2000	2	100	16,6	CM200602	CM200602INOX	CM200602INOX316L	-
M8x1000	1	50	15,1	CM200801	CM200801INOX	CM200801INOX316L	CM200801ZL
M8x2000	2	50	15,1	CM200802	CM200802INOX	CM200802INOX316L	CM200802ZL
M10x1000	1	25	11,65	CM201001	CM201001INOX	CM201001INOX316L	CM201001ZL
M10x2000	2	50	23,3	CM201002	CM201002INOX	CM201002INOX316L	CM201002ZL
M12x1000	1	20	14,1	CM201201	CM201201INOX	CM201201INOX316L	CM201201ZL
M12x2000	2	20	14,1	CM201202	CM201202INOX	CM201202INOX316L	CM201202ZL
M16x1000	1	1	1,11	CM201601	-	-	-

## Threaded rod , short



### Purpose:

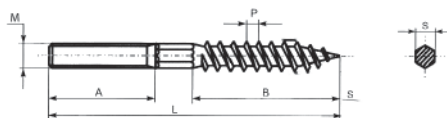
- fastening of pipe clips to profiles and brackets, connection of mounting accessories.

### Characteristics:

- 4,8 strength class for the version 1.

Description MxL	L, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M8x40	40	100	1,02	CM200804
M8x60	60	100	1,32	CM200806
M8x80	80	100	1,85	CM200808
M8x100	100	100	2,35	CM200810
M10x40	40	50	1,09	CM201004
M10x60	60	50	1,33	CM201006
M10x80	80	50	1,81	CM201008
M10x100	100	50	2,06	CM201010
M12x80	80	50	3,62	CM201208
M12x100	100	50	4,12	CM201210

## Threaded rod – screw


**Purpose:**

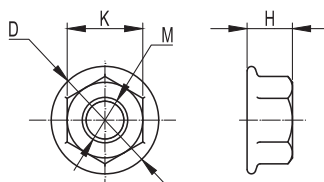
- fastening of pipe clips and other mounting accessories into wooden base, brick, concrete, natural stone together with dowel of a suitable size.

**Characteristics:**

- 4,8 strength class for the version 1.

Description MxL	L, mm	A, mm	B, mm	P, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M8x60	60	20	30	3	100	1,32	CM260806
M8x80	80	30	40	3	100	1,85	CM260808
M8x100	100	40	50	3	100	2,35	CM260810
M8x120	120	50	50	3	100	2,99	CM260812
M8x150	150	50	50	3	100	4,03	CM260815
M10x80	80	20	45	3	50	1,81	CM261008
M10x100	100	40	45	3	50	2,06	CM261010
M10x120	120	40	55	3	50	2,33	CM261012
M10x150	150	50	55	3	50	3,07	CM261015

## Hexagon nut with serrate flange


**Purpose:**

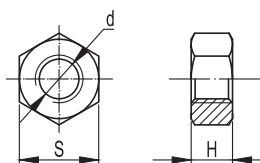
- connection cable trays and their fixation to mounting accessories.

**Characteristics:**

- 5 strength class for the version 1.

Description M	K, mm	D, mm	H, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M5	8	11,8	5	200	0,36	CM100500	–	–	–
M6	10	14,2	6	200	0,8	CM100600	CM100600HDZ	CM100600INOX	CM100600INOX316L
M8	13	17,9	8	100	0,8	CM100800	CM100800HDZ	CM100800INOX	CM100800INOX316L
M10	16	21,8	10	100	1,1	CM101000	CM101000HDZ	CM101000INOX	CM101000INOX316L
M12	18	26,0	12	50	0,9	CM101200	CM101200HDZ	CM101200INOX	CM101200INOX316L

## Hexagon nut


**Purpose:**

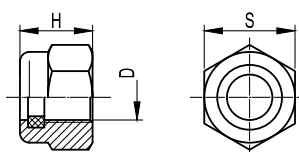
- connection of mounting accessories and fastening of cable trays to mounting accessories.

**Characteristics:**

- 5 strength class for the version 1.

Description d	S, mm	Height H, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M6	10	5,2	200	0,5	CM110600	CM110600HDZ	CM110600INOX	CM110600INOX316L
M8	13	6,8	100	0,5	CM110800	–	CM110800INOX	CM110800INOX316L
M10	16	8,4	100	0,6	CM111000	CM111000HDZ	CM111000INOX	CM111000INOX316L
M12	18	10,8	50	0,8	CM111200	CM111200HDZ	CM111200INOX	CM111200INOX316L
M16	24	12,3	30	1	CM111600	–	–	–

## Self-locking nut


**Purpose:**

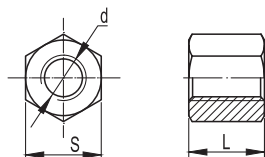
- connection of mounting accessories and fastening of cable trays to mounting accessories.

**Characteristics:**

- 5 strength class for the version 1.

Description d	S, mm	Height H, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M6	10	6	200	0,4	CM250600
M8	13	8	100	0,5	CM250800
M10	16	10	100	1,1	CM251000
M12	18	12	50	0,8	CM251200

## Coupling sleeve



### Purpose:

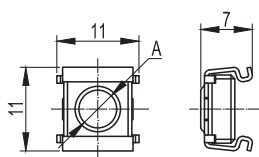
- connection of threaded pins.

### Characteristics:

- 5 strength class for the version 1.

Description dxL	S, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M6x25	10	150	1,50	CM210625
M8x25	13	100	1,75	CM210825
M10x30	17	50	1,90	CM211030
M12x40	19	50	3,00	CM211240

## Cage nut



### Purpose:

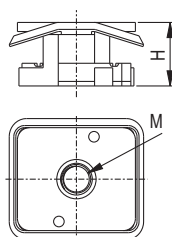
- fastening of mounting accessories in electric enclosures;
- installed in standard perforation.

### Characteristics:

- 5 strength class for the version 1.

Description A	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M6	50	0,3	CM230600
M8	50	0,6	CM230800

## Mounting nut



### Purpose:

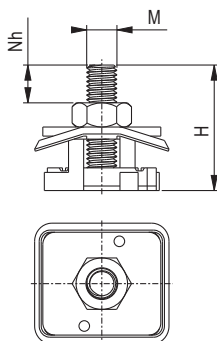
- mounting of pipe clips and other mounting accessories into C-shaped profile BPL-41, BPM-41, BPD-41 and BBP-41 bracket.

### Characteristics:

- 5 strength class for the version 1.

Description M	H, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M8	21	100	5,4	CM340800
M10	21	100	6,3	CM341000
M12	21	100	6,0	CM341200

## Mounting nut with threaded rod



### Purpose:

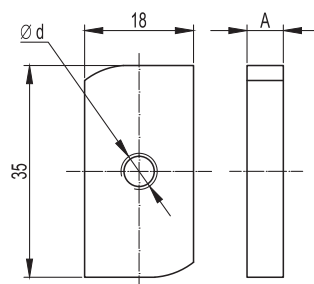
- mounting of pipe clips and other mounting accessories into C-shaped profile BPL-41, BPM-41, BPD-41 and BBP-41 bracket.

### Characteristics:

- 5 strength class for the version 1.

Description M	H, mm	Nh, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M8	50	13	100	7,5	CM350840
M8	70	33	100	8,1	CM350860
M10	50	11	100	9,3	CM351040
M10	70	31	100	10,2	CM351060

## Profile nut


**Purpose:**

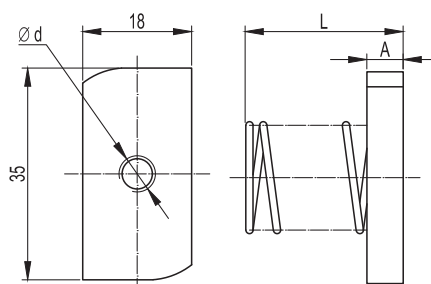
- fastening of brackets to C-shaped profile, suspension and traverses on the base of C-shaped profile of 21x41 and 41x41 dimension type.

**Characteristics:**

- 5 strength class for the version 1.

Description d	A, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M6	5,5	100	2,40	CM140600	–	–	CM140600INOX316L
M8	7,5	100	3,40	CM140800	–	–	CM140800INOX316L
M10	8,8	100	3,70	CM141000	CM141000HDZ	CM141000INOX	CM141000INOX316L
M12	11,5	100	4,40	CM141200	–	–	–

## Spring nut


**Purpose:**

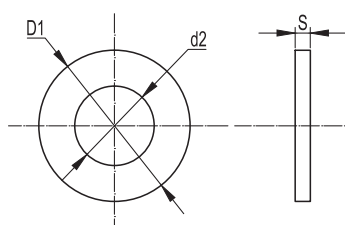
- fastening of brackets to C-shaped profile, suspension and traverses on the base of C-shaped profile. Nut with standard spring is compatible with profile of 21x41 dimension type, nut with extended spring – with 41x41 profile.

**Characteristics:**

- 5 strength class for the version 1.

Spring	Description d	A, mm	L, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 3, AISI 316L
Standard	M6	5,5	25,5	50	1,5	CM150600	–
	M8	7,5	27,5	50	1,8	CM150800	–
	M10	8,8	28,8	50	2,0	CM151000	–
	M12	11,5	31,5	50	2,5	CM151200	–
Extended	M6	5,5	45,5	50	1,5	CM160600	CM160600INOX316L
	M8	7,5	47,5	50	1,8	CM160800	CM160800INOX316L
	M10	8,8	48,8	50	2,0	CM161000	CM161000INOX316L
	M12	11,5	51,5	50	2,5	CM161200	–

## Plain washer DIN 125


**Purpose:**

- connection of mounting elements.

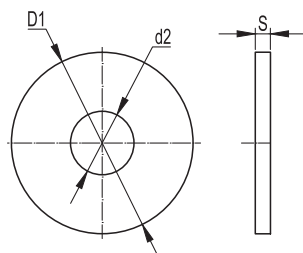
**Distinctive features:**

- narrow edges.

Description	d2, mm	D1, mm	S, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2
M4	4,5	9	0,8	500	0,16	CM240400	–
M5	5,5	10	1,0	500	0,22	CM240500	–
M6	6,6	12	1,6	200	0,2	CM240600	–
M8	9,0	16	1,6	100	0,2	CM240800	–
M10	11,0	20	2,0	100	0,4	CM241000	CM241000HDZ
M12	13,5	24	2,5	50	0,31	CM241200	CM241200HDZ
M14	15,5	28	2,5	50	0,43	CM241400	–
M16	17,5	30	3,0	40	0,46	CM241600	–



## Plain washer DIN 9021

**Purpose:**

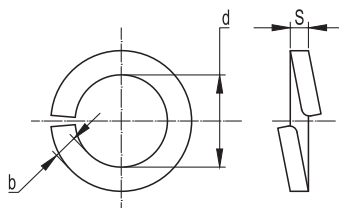
- connection of mounting elements.

**Distinctive features:**

- wide edges.

Description	d2, mm	D1, mm	S, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 3	Code, ver. 3, AISI 316L
M4	4,5	12	1,0	500	0,22	CM120400	–	–
M5	5,5	15	1,2	500	0,26	CM120500	–	–
M6	6,6	18	1,6	200	0,60	CM120600	CM120600INOX	CM120600INOX316L
M8	9,0	24	2,0	100	0,36	CM120800	CM120800INOX	CM120800INOX316L
M10	11,0	30	2,5	100	0,38	CM121000	CM121000INOX	CM121000INOX316L
M12	13,5	37	3,0	50	0,41	CM121200	CM121200INOX	CM121200INOX316L
M14	15,5	44	3,0	50	0,60	CM121400	–	–
M16	17,5	50	3,0	40	0,68	CM121600	–	–

## Split washer

**Purpose:**

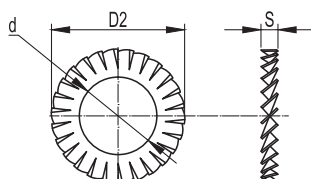
- connection of mounting elements.

**Distinctive features:**

- prevents unscrewing rotation of the fastening.

Description	d, mm	b, mm	S, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M6	6,1	1,6	1,2	400	0,4	CM130600	CM130600HDZ	CM130600INOX	CM130600INOX316L
M8	8,2	2,0	1,6	200	0,4	CM130800	CM130800HDZ	CM130800INOX	CM130800INOX316L
M10	10,2	2,5	2,0	100	0,4	CM131000	CM131000HDZ	CM131000INOX	CM131000INOX316L
M12	12,2	3,5	2,5	50	0,4	CM131200	CM131200HDZ	CM131200INOX	CM131200INOX316L

## Toothed lock washer

**Purpose:**

- connection of DKC ladder trays.

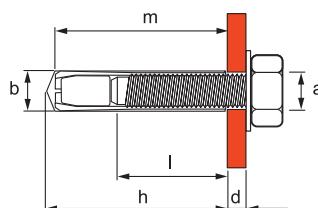
**Distinctive features:**

- prevents unscrewing rotation of the fastening.

Description	d, mm	D2, mm	S, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2	Code, ver. 3	Code, ver. 3, AISI 316L
M6	6,4	11,0	1,4	200	0,10	CM220600	CM220600HDZ	CM220600INOX	CM220600INOX316L
M8	8,4	15,0	1,8	200	0,15	CM220800	–	CM220800INOX	CM220800INOX316L
M10	10,5	18,0	1,8	100	0,13	CM221000	–	CM221000INOX	CM221000INOX316L
M12	12,5	20,0	1,8	100	0,16	CM221200	–	CM221200INOX	CM221200INOX316L

## Anchors, wall plugs

### Drop in metal anchor



#### Purpose:

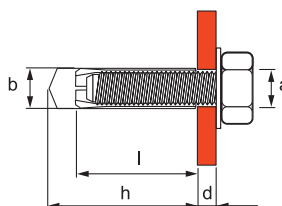
- fastening of heavy constructions to concrete, natural stone and solid brick.

#### Distinctive features:

- economic and quick mounting;
- shallow depth of the drilled hole;
- the fastener can be loosened at any time;
- for ease installation a special tool for drop in metal anchors (code: CMT00002) is used.

Thread diameter	Anchor length, mm	Drill diameter, mm	Inner thread depth, mm	Drilling depth, mm	Wrench torque, Hm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 30/37, kN*	Pcs./ pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2
a	m	b	l	h								
M6	25	8	11,5	27	4	48	48	5,63	200	1,2	CM400625	-
M8	30	10	13,5	32	8	64	64	7,73	100	1,2	CM400830	CM400830HDZ
M10	40	12	16	42	15	80	80	11,79	70	1,12	CM401040	CM401040HDZ
M12	50	15	21	53	35	96	96	18,12	30	1,5	CM401250	-
M16	65	20	26	68	60	128	128	26,87	15	1,65	CM401665	-

### Brass metal anchor



#### Purpose:

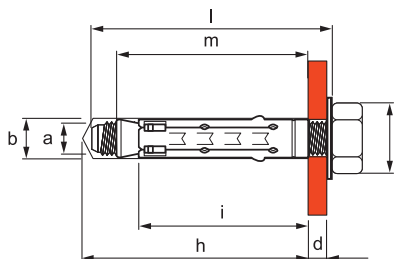
- fastening of light constructions to concrete, natural stone and solid brick.

#### Distinctive features:

- easy to drive;
- suitable for compressive zone of concrete;
- high bearing capacity both in compression and tension zone.

Thread diameter	Anchor length, mm	Drill diameter, mm	Drilling depth, mm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN	Pcs./ pack.	Weight of pack, kg	Code
a	l	b	h						
M4	16	5	20	32	32	0,5	200	0,5	CM410416
M5	21	6,5	25	40	40	0,8	200	0,64	CM410421
M6	24	8	28	48	48	1,3	200	0,95	CM410625
M8	31	10	35	64	64	2	100	0,72	CM410831
M10	34	12	39	80	80	2,5	90	1,3	CM411034
M12	41	15	46	96	96	3,1	50	1,3	CM411241
M14	43	20	50	112	112	4,2	25	1,6	CM411443
M16	45	22	52	128	128	5	20	1,5	CM411645

### Sleeve metal anchor



#### Purpose:

- fastening of heavy constructions to concrete, natural stone and solid brick.

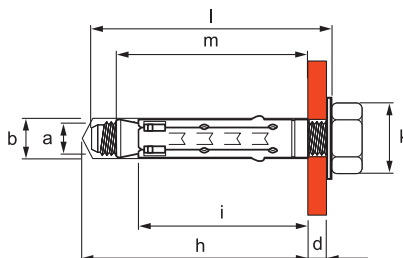
#### Distinctive features:

- multipurpose;
- possibility of repeated demounting;
- plastic end cap prevents from drilling dust.

Thread diameter	Anchor length, mm	Drill diameter, mm	Sleeve length, mm	Drilling depth, mm	Wrench torque, Hm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
a	m	b	i	h				tear*	cut			
M6	48	10	40	55	10	48	48	7,91	12,80	50	1	CM420645
M8	54	12	45	60	25	64	64	8,26	18,40	50	1,05	CM420850
M10	64	15	52	67	45	80	80	16,47	21,20	30	1,54	CM421060
M12	80	18	65	80	75	96	96	21,08	39,20	20	2,5	CM421274

\* Value for static loadings

## Sleeve metal anchor with bolt



### Purpose:

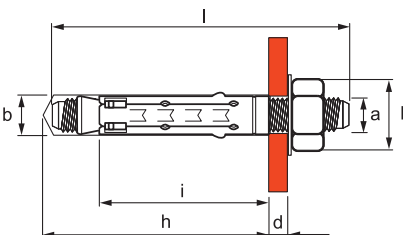
- fastening of heavy constructions to concrete, natural stone and solid brick.

### Distinctive features:

- in set with bolt;
- multipurpose;
- possibility of repeated demounting;
- plastic end cap prevents from drilling dust.

Thread diameter	Anchor length, mm	Drill diameter, mm	Sleeve length, mm	Drilling depth, mm	Max thick. of fastened material, mm	Wrench torque, Hm	Min distance between anchors., mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
									tear*	cut			
a	l	b	i	h	d								
M6	55	10	40	55	5	10	48	48	7,91	12,80	40	1	CM430645
M8	60	12	45	60	10	25	64	64	8,26	18,40	25	1,05	CM430850
M10	80	15	52	67	20	45	80	80	16,47	21,20	20	1,54	CM431060
M12	90	18	65	80	25	75	96	96	21,08	39,20	20	2,5	CM431274

## Sleeve metal anchor with stud



### Purpose:

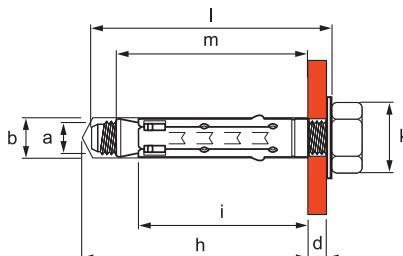
- fastening of heavy constructions to concrete, natural stone and solid brick.

### Distinctive features:

- in set with pin and nut;
- multipurpose;
- possibility of repeated demounting;
- plastic end cap prevents from drilling dust.

Thread diameter	Anchor length, mm	Drill diameter, mm	Sleeve length, mm	Drilling depth, mm	Max thick. of fastened material, mm	Wrench torque, Hm	Min distance between anchors., mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
									tear*	cut			
a	l	b	i	h	d								
M6	60	10	40	55	5	6	48	48	7,91	12,80	40	1	CM440645
M8	70	12	45	60	10	15	64	64	8,26	18,40	25	1,15	CM440850
M10	90	15	52	67	20	30	80	80	16,48	21,20	20	1,56	CM441060
M12	110	18	65	80	25	50	96	96	21,08	39,20	20	2,6	CM441274

## Heavy sleeve metal anchor



### Purpose:

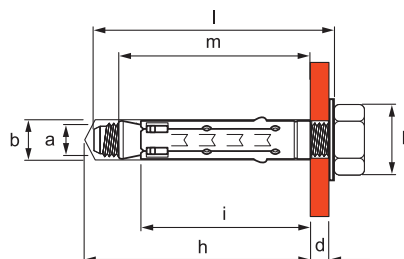
- fastening of heavy constructions to concrete, natural stone and solid brick.

### Distinctive features:

- collapsing legs prevent unscrewing at mounting;
- possibility of repeated demounting;
- plastic end cap prevents from drilling dust.

Thread diameter	Anchor length, mm	Drill diameter, mm	Sleeve length, mm	Drilling depth, mm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
							tear*	cut			
a	m	b	i	h							
M6	40	12	30	45	48	48	9,60	12,80	50	0,75	CM450645
M8	47	14	35	50	64	64	9,85	18,40	50	1,2	CM450850
M10	55	16	43	58	80	80	14,06	21,20	30	1,08	CM451065
M12	70	20	55	70	96	96	28,73	39,20	20	1,3	CM451275

## Heavy sleeve metal anchor with bolt



### Purpose:

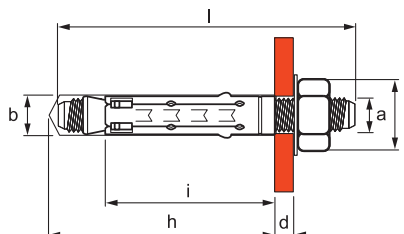
- fastening of heavy constructions to concrete, natural stone and solid brick.

### Distinctive features:

- in set with bolt;
- collapsing legs prevent unscrewing at mounting;
- possibility of repeated demounting;
- plastic end cap prevents from drilling dust.

Thread diameter	Anchor length, mm	Drill diameter, mm	Sleeve length, mm	Drilling depth, mm	Max thick. of fastened material, mm	Wrench torque, Hm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
									tear*	cut			
M6	55	12	30	45	5	10	48	48	9,60	12,80	40	1,2	CM460645
M8	60	14	35	50	10	25	64	64	9,85	18,40	25	1,35	CM460850
M10	80	16	43	58	20	45	80	80	14,06	21,20	20	1,8	CM461065
M12	90	20	55	70	25	75	96	96	28,73	39,20	20	3,2	CM461275

## Heavy sleeve metal anchor with stud



### Purpose:

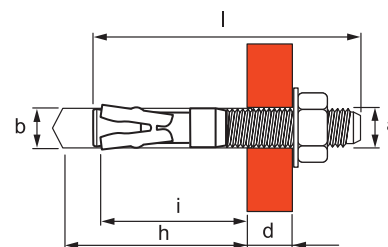
- fastening of heavy constructions to concrete, natural stone and solid brick.

### Distinctive features:

- in set with washer and nut;
- collapsing legs prevent unscrewing at mounting;
- possibility of repeated demounting;
- plastic end cap prevents from drilling dust.

Thread diameter	Anchor length, mm	Drill diameter, mm	Sleeve length, mm	Drilling depth, mm	Max thickness of fastened material, mm	Wrench torque, Hm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
									tear*	cut			
M6	60	12	30	45	10	5	48	48	9,60	12,80	40	1,2	CM470645
M8	70	14	35	50	15	15	64	64	9,85	18,40	25	1,4	CM470850
M10	90	16	43	58	15	30	80	80	14,06	21,20	20	2	CM471065
M12	100	20	55	70	20	50	96	96	28,73	39,20	20	3,2	CM471275

## Stud metal anchor



### Purpose:

- fastening of heavy constructions to concrete, natural stone and solid brick.

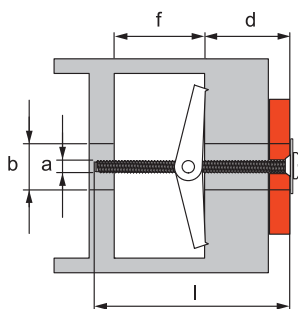
### Distinctive features:

- in set with washer and nut;
- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Anchor length, mm	Drill diameter, mm	Drilling depth, mm	Max thickness of fastened material, mm	Wrench torque, Hm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./ pack.	Weight of pack, kg	Code, ver. 1
								tear*	cut			
M6	45	6	41	10	10	48	48	4,91	5,60	100	1,11	CM480645
M6	55	6	41	20	10	48	48	5,28	5,60	100	1,25	CM480655
M8	50	8	48	10	20	64	64	8,82	11,20	60	1,38	CM480850
M8	53	8	48	10	20	64	64	9,60	11,20	60	1,38	CM480853
M8	65	8	48	25	20	64	64	9,63	11,20	50	1,3	CM480865
M10	60	10	48	10	45	80	80	8,98	18,40	35	1,19	CM481060
M10	75	10	60	25	45	80	80	10,04	18,40	30	1,2	CM481075
M10	100	10	72	40	45	80	80	8,98	18,40	25	1,63	CM481001
M10	110	10	82	42	45	80	80	10,04	18,40	50	2	CM481011
M12	75	12	72	10	65	96	96	13,56	26,60	20	1,2	CM481275
M12	100	12	72	40	65	96	96	16,99	26,60	30	2,7	CM481201
M16	125	16	91	45	120	128	128	19,24	43,20	15	3	CM481612

\* Value for static loadings

## Spring toggle anchor with stud



### Purpose:

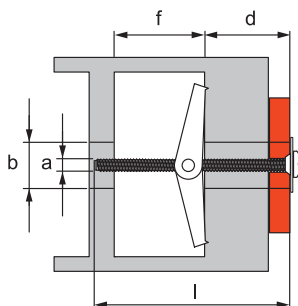
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Length, mm	Drill diameter, mm	Min depth of hollows, mm	Max thicknes of fastening, mm	Tear strength, kN	Pcs./ pack.	Weight of pack, kg	Code, ver. 1
a	l	b	f	d				
M3	95	10	25	60	0,4	20	0,24	CM500310
M3	95	12	28	57	0,4	20	0,28	CM500312
M4	95	14	32	53	0,4	20	0,42	CM500414

## Spring toggle anchor with ring



### Purpose:

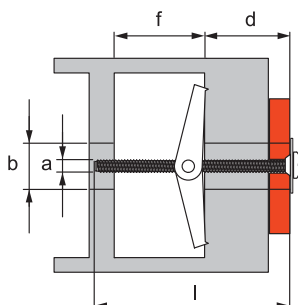
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Length, mm	Drill diameter, mm	Min depth of hollows, mm	Max thicknes of fastening, mm	Tear strength, kN	Pcs./ pack.	Weight of pack, kg	Code, ver. 1
a	l	b	f	d				
M3	65	10	25	35	0,4	20	0,14	CM510310
M3	65	12	28	33	0,4	20	0,28	CM510312
M4	65	14	32	31	0,5	20	0,44	CM510414

## Spring toggle anchor with hook



### Purpose:

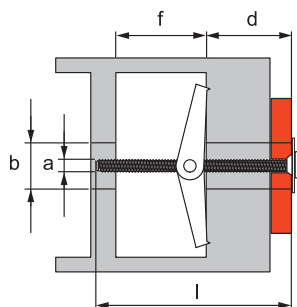
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Length, mm	Drill diameter, mm	Min depth of hollows, mm	Max thicknes of fastening, mm	Tear strength, kN	Pcs./ pack.	Weight of pack, kg	Code, ver. 1
a	l	b	f	d				
M3	65	12	25	35	0,4	20	0,40	CM520310
M4	65	14	32	31	0,5	20	0,50	CM520414

## Spring toggle anchor with screw



### Purpose:

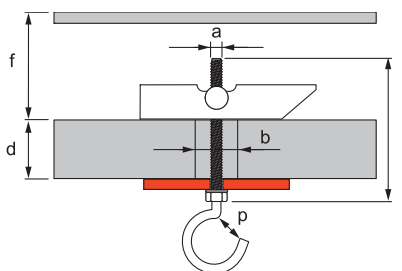
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Length, mm	Drill diameter, mm	Min depth of hollows, mm	Max thickness of fastening, mm	Tear strength, kN	Pcs./pack.	Weight of pack, kg	Code, ver. 1
a	l	b	f	d				
M3	75	12	25	45	0,4	25	0,40	CM530310
M4	75	14	32	40	0,5	25	0,50	CM530414

## Toggle anchor with stud



### Purpose:

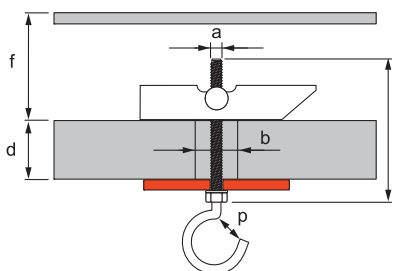
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Length, mm	Drill diameter, mm	Min depth of hollows, mm	Max thickness of fastening, mm	Tear strength, kN	Pcs./pack.	Weight of pack, kg	Code, ver. 1
a	l	b	f	d				
M6	100	16	69	31	0,72	25	1,10	CM540616

## Toggle anchor with hook



### Purpose:

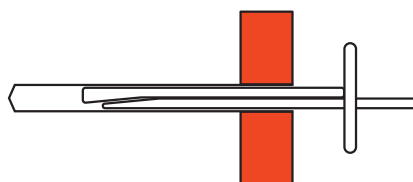
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Length, mm	Drill diameter, mm	Min depth of hollows, mm	Max thickness of fastening, mm	Tear strength, kN	Pcs./pack.	Weight of pack, kg	Code, ver. 1
a	l	b	f	d				
M6	100	16	69	31	0,72	25	1,10	CM550616

## Ceiling wedge anchor



### Purpose:

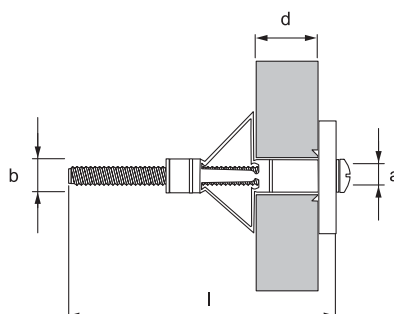
- fastening of light constructions to concrete, natural stone and solid brick.

### Distinctive features:

- quick mounting;
- non-removable mounting.

Size	Drill diameter, mm	Drilling depth, mm	Anchoring depth, mm	Min distance between anchors, mm	Min distance from edge, mm	Rupture load for concrete C 20/25, kN		Pcs./pack.	Weight of pack, kg	Code, ver. 1
						tear	cut			
6x35	6	45	32	200	100	0,5	0,5	100	1,05	CM490635
6x65	6	75	32	200	100	0,5	0,5	70	1,05	CM490665

## Cavity metal anchor with screw



### Purpose:

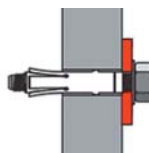
- fastening to plasterboard, chipboard and similar thin wall constructions.

### Distinctive features:

- high holding strength due to a secure contact of supporting elements with rear panel;
- ends of anchor prevent it from falling back through the hole;
- anti-rotation barbs incorporated in the flange prevent the anchor from spinning.

Description	Screw length, mm	Drill diameter, mm	Thickness of wall to fix wall plug, mm	Tear strength, kN plasterboard, 13 mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
a	l	b	d				
M4x20	28	7	0-4	0,1	200	1,00	CM560420
M4x32	41	7	3-9	0,1	100	0,65	CM560432
M4x38	47	7	8-15	0,1	100	0,73	CM560438
M4x45	54	7	16-21	0,1	90	0,81	CM560445
M4x59	67	7	24-34	0,1	75	0,90	CM560459
M5x52	60	9	9-21	0,2	50	1,10	CM560552
M5x65	74	9	24-32	0,2	40	0,80	CM560565
M6x52	60	10	9-21	0,2	40	0,90	CM560652
M6x65	74	10	24-32	0,2	30	0,90	CM560665

## Metal anchor for hollow plates



### Purpose:

- fastening of light constructions to hollow reinforced concrete slabs of overhead constructions.

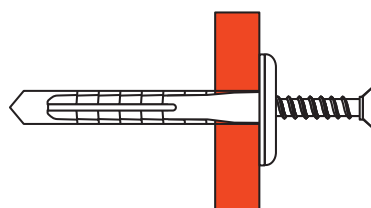
### Distinctive features:

- doesn't require accuracy of drilling depth and hole cleaning;
- quick mounting.

Thread diameter	Anchor length, mm	Drill diameter, mm	Drilling depth, mm	Tear strength for concrete C45/55, kH	Pcs./pack.	Code, ver. 1
M8	30	10	55	0,7	100	CM570830



## Screw with C-type anchor



### Purpose:

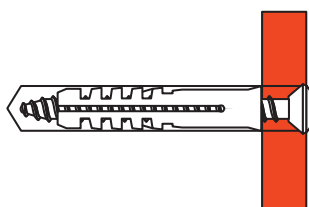
- fastening of light constructions to concrete, natural stone and solid brick.

### Distinctive features:

- quick mounting;
- cap hides screw head.

Description	Anchor's length, mm	Drill diameter, mm	Anchor type	Pcs./pack.	Weight of pack, kg	Code, ver. 1
4x35	35	6	C6	100	0,18	CM06520

## Screw with V-type anchor



### Purpose:

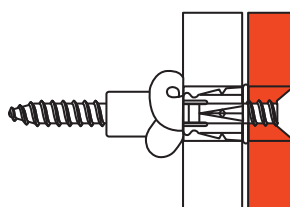
- fastening of light constructions to concrete, natural stone and solid brick.

### Distinctive features:

- quick mounting;
- doesn't require accuracy of drilling depth and hole cleaning.

Description	Anchor's length, mm	Drill diameter, mm	Anchor type	Pcs./pack.	Weight of pack, kg	Code, ver. 1
4x30	25	5	V5	100	0,15	CM06521
4,5x40	30	6	V6	100	0,20	CM06522
5x45	40	8	V8	100	0,30	CM06523

## Screw with F-type anchor



### Purpose:

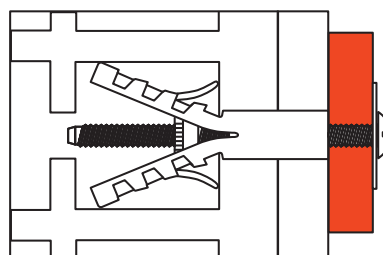
- fastening of light constructions to concrete, natural stone and solid brick as well as to thick wall panels and plates.

### Distinctive features:

- quick mounting;
- doesn't require accuracy of drilling depth and hole cleaning.

Description	Anchor's length, mm	Drill diameter, mm	Anchor type	Pcs./pack.	Weight of pack, kg	Code, ver. 1
3,5x50	45	6	F6	100	0,30	CM06541
4,5x60	50	8	F8	100	0,30	CM06542

## Screw with M-type anchor



### Purpose:

- fastening of light constructions to concrete, natural stone and solid brick as well as to thick wall panels and plates.

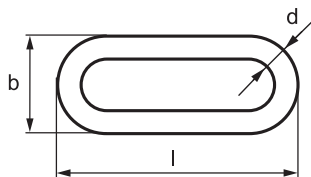
### Distinctive features:

- quick mounting;
- doesn't require accuracy of drilling depth and hole cleaning.

Description	Anchor's length, mm	Drill diameter, mm	Anchor type	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M4x45	40	8	M8	100	0,40	06551
M4x50	50	8	M8	100	0,55	06552

## Rigging

### Chain


**Purpose:**

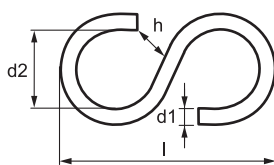
- suspension of light cable lines.

**Distinctive features:**

- quick mounting;
- suspension at high altitude is possible.

Link thickness d, mm	Link length l, mm	Link width b, mm	Max. load, kg	Pcs./pack, m	Weight of pack, kg	Code, ver. 1
2,5	29	10	55	30	3,21	CM610010

### S-hook


**Purpose:**

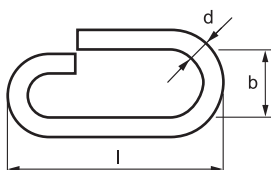
- chain connection.

**Distinctive features:**

- quick mounting;
- possibility of repeated demounting.

Thickness d1, mm	Length l, mm	Width d2, mm	Gap h, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
5	43	13	6	100	1,5	CM610020

### Chain connector


**Purpose:**

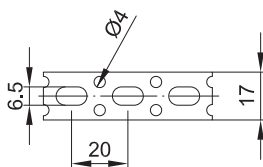
- chain connection, fastening to perforated trays.

**Distinctive features:**

- quick mounting;
- possibility of repeated demounting.

Thickness d, mm	Length l, mm	Width b, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
4	30	9	100	0,74	CM610030

### Steel roll


**Purpose:**

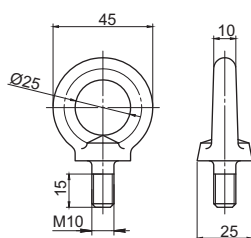
- fastening of mounting structures and cable lines to ceiling and wall.

**Distinctive features:**

- easy mounting;
- suspension at high altitude is possible.

Width b, mm	Mounting size d1, mm	Mounting size d2, mm	Thickness, mm	Pitch of holes, mm	Max. load, kg	Pcs./pack, m	Weight of pack, kg	Code, ver. 1
17	6	4	0,6	20	50	25	1,4	CM610040
25	9	4	0,8	33	75	25	3	CM610050

### Eye bolt


**Purpose:**

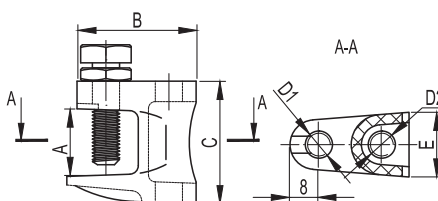
- used to lift loads as the connection between the rope and transported device.

**Distinctive features:**

- easy operation;
- large temperature range: from -200 to +200 °C.

Thread diameter	Work load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M10	230	10	1,2	CM610063

## Clamp


**Purpose:**

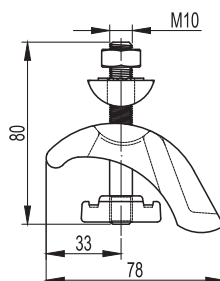
- vertical fastening of pins to channel when drilling and welding is not possible.

**Distinctive features:**

- quick mounting;
- possibility of repeated demounting.

Description D2, mm	Gap A, mm	Thread D1, mm	Length B, mm	Width E, mm	Height C, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1	Code, ver. 2
M6	18	M8	35	19	36	120	14	1,26	CM300600	–
M8	18	M8	35	19	36	120	14	1,61	CM300800	CM300800HDZ
M10	20	M10	40	22	42	250	12	1,92	CM301000	–
M12	26	M10	48,5	24	54	350	6	1,50	CM301200	–

## Locking clamp


**Purpose:**

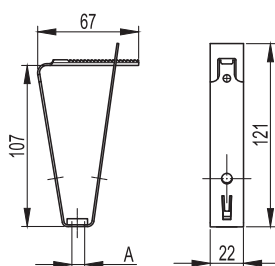
- fastening of mounting channel to double channel (double tee beam) without drilling and welding works.

**Distinctive features:**

- quick mounting;
- possibility of repeated demounting.

Description	Max. gap, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M10	30	1500	4	1,52	CM301001

## Roof metal decking


**Purpose:**

- pin suspension to ceiling of profiled sheeting.

**Characteristics:**

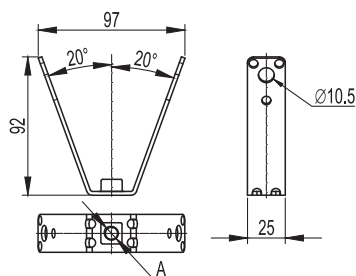
- thickness 2,5 mm.

**Distinctive features:**

- thickness of profiled sheeting is 50 mm.

Description A	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M8	50	3,50	CM310800
M10	50	3,50	CM311000

## V-type roof metal decking


**Purpose:**

- pin suspension to ceiling of profiled sheeting.

**Characteristics:**

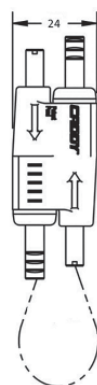
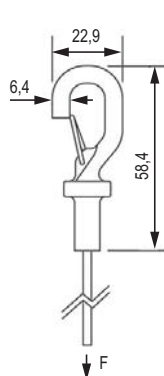
- thickness 1 mm.

**Distinctive features:**

- thickness of profiled sheeting is 50–100 mm.

Description A	Pcs./pack.	Weight of pack, kg	Code, ver. 1
M8	50	5,5	CM330800
M10	50	5,5	CM331000

## Speed link rope

**Purpose:**

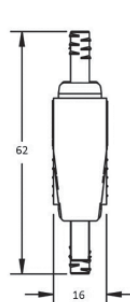
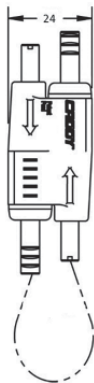
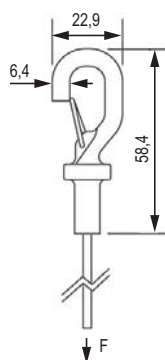
- suspension of light cable lines and utility facilities to building structures.

**Distinctive features:**

- adjustable rope length;
- possibility of repeated demounting.

Rope thickness, mm	Rope length, m	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5	2	20	10	0,8	CM615020
1,5	3	20	10	1,0	CM615030
1,5	5	20	10	1,4	CM615050
1,5	7	20	10	1,8	CM615070
1,5	10	20	10	2,4	CM615100

## Speed link rope (reinforced)

**Purpose:**

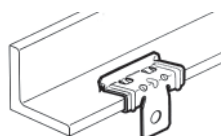
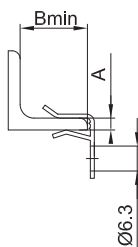
- suspension of light cable lines and utility facilities to building structures.

**Distinctive features:**

- adjustable rope length;
- possibility of repeated demounting.

Rope thickness, mm	Rope length, m	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
2	2	45	5	0,6	CM620020
2	3	45	5	0,75	CM620030
2	5	45	5	1,05	CM620050
2	7	45	5	1,35	CM620070
2	10	45	5	1,8	CM620100

## Horizontal rope fastening to beam

**Purpose:**

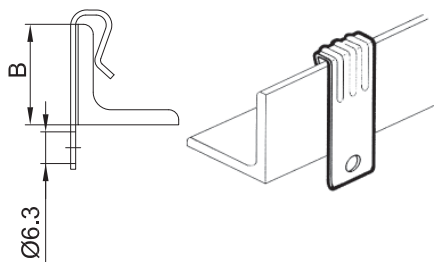
- mounting to a beam in a horizontal plane for further fixing of the rope or chain.

**Distinctive features:**

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-4	18	70	5	0,15	CM611003
4-10	25	90	5	0,15	CM611008
10-15	25	90	5	0,15	CM611014
15-20	25	90	5	0,15	CM611020

### Vertical rope fastening to beam


**Purpose:**

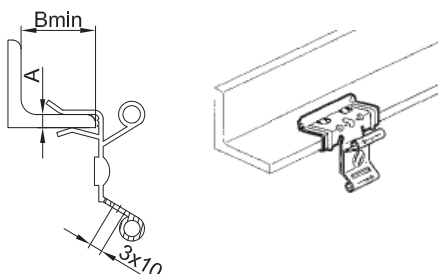
- mounting to a beam in a vertical plane for further fixing of the rope or chain.

**Distinctive features:**

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-5	30	70	5	0,15	CM612006
5-7	30	70	5	0,15	CM612007

### Horizontal clip fastening to beam


**Purpose:**

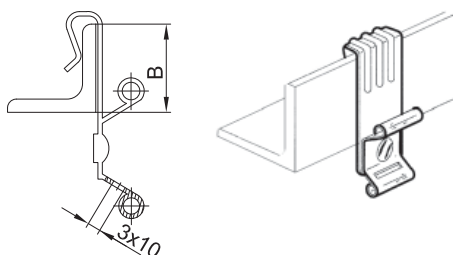
- mounting to a beam in a horizontal plane for further fixing of the rope or chain with a clip.

**Distinctive features:**

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-4	18	15	5	0,15	CM613004
4-10	25	15	5	0,15	CM613010
10-15	25	15	5	0,15	CM613015
15-20	25	15	5	0,15	CM613020

### Vertical clip fastening to beam


**Purpose:**

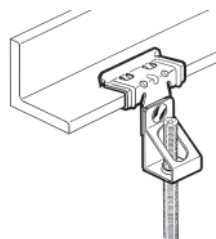
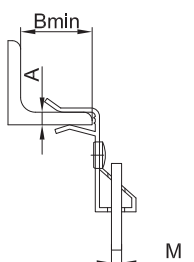
- mounting to a beam in a vertical plane for further fixing of the rope or chain with a clip.

**Distinctive features:**

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-5	30	70	5	0,15	CM619005
5-7	30	70	5	0,15	CM619007

### Horizontal pin fastening to beam


**Purpose:**

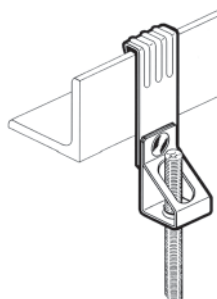
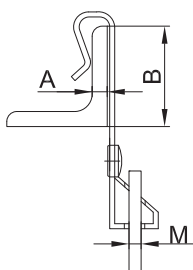
- mounting to a beam in a horizontal plane for further fixing of a pin.

**Distinctive features:**

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-4	18	70	5	0,15	CM614604
4-10	25	70	5	0,15	CM614610
10-15	25	70	5	0,15	CM614615
15-20	25	70	5	0,15	CM614620
1,5-4	18	70	5	0,15	CM614804
4-10	25	70	5	0,15	CM614810
10-15	25	70	5	0,15	CM614815
15-20	25	70	5	0,15	CM614820
1,5-4	18	70	5	0,15	CM614104
4-10	25	70	5	0,15	CM614110
10-15	25	70	5	0,15	CM614115
15-20	25	70	5	0,15	CM614120

### Vertical pin fastening to beam


**Purpose:**

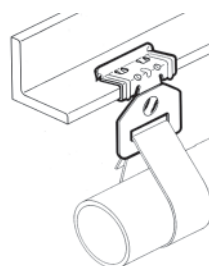
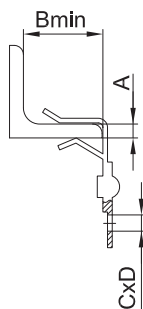
- mounting to a beam in a vertical plane for further fixing of a pin.

**Distinctive features:**

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-5	30	70	5	0,15	CM620605
5-7	30	70	5	0,15	CM620607
1,5-5	30	70	5	0,15	CM620805
5-7	30	70	5	0,15	CM620807
1,5-5	30	70	5	0,15	CM620105
5-7	30	70	5	0,15	CM620107

## Horizontal fastening for mounting tape to a beam



### Purpose:

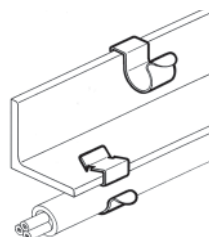
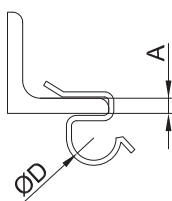
- mounting to a beam in a horizontal plane for further fixing of pipes and cables with mounting tape.

### Distinctive features:

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	B, mm	CxD, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1,5-4	18	28×6,5	45	5	0,15	CM616004
4-10	25	28×6,5	45	5	0,15	CM616010
10-15	25	28×6,5	45	5	0,15	CM616015
15-20	25	28×6,5	45	5	0,15	CM616020

## Clip for pipe fixing to a beam



### Purpose:

- mounting to a beam in a horizontal plane or to an upper edge for further fixing of pipes and cables.

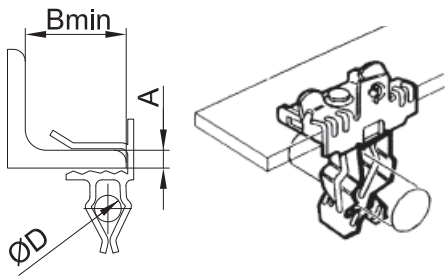
### Distinctive features:

- size of an item depends on a profile thickness;
- possibility of repeated demounting.

Beam thickness A, mm	D, mm	Pcs./pack.	Weight of pack, kg	Code, ver. 1
1-4	8-9	5	0,05	CM617409
1-4	10-11	5	0,05	CM617411
1-4	12-14	5	0,05	CM617414
1-4	15-18	5	0,05	CM617418
1-4	19-24	5	0,05	CM617424
1-4	25-30	5	0,05	CM617430
4-7,5	8-9	5	0,05	CM617709
4-7,5	10-11	5	0,05	CM617711
4-7,5	12-14	5	0,05	CM617714
4-7,5	15-18	5	0,05	CM617718
4-7,5	19-24	5	0,05	CM617724
4-7,5	25-30	5	0,05	CM617730
7,5-12	8-9	5	0,05	CM617109
7,5-12	10-11	5	0,05	CM617111
7,5-12	12-14	5	0,05	CM617114
7,5-12	15-18	5	0,05	CM617118
7,5-12	19-24	5	0,05	CM617124
7,5-12	25-30	5	0,05	CM617130



Holder for pipe fixing to a beam

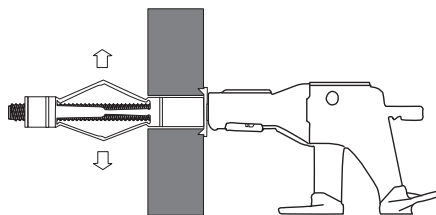


- Purpose:**
- mounting to a beam in a horizontal plane for further fixing of pipes and cables.
- Distinctive features:**
- size of an item depends on a profile thickness;
  - possibility of repeated demounting.

Beam thickness A, mm	B, mm	D, mm	Max. load, kg	Pcs./pack.	Weight of pack, kg	Code, ver. 1
4-10	35	18-22	11	5	0,20	CM618122
10-15	35	22-30	11	5	0,20	CM618130
15-20	35	30-35	11	5	0,20	CM618135
4-10	35	18-22	11	5	0,20	CM618222
10-15	35	22-30	11	5	0,20	CM618230
15-20	35	30-35	11	5	0,20	CM618235
4-10	35	18-22	11	5	0,20	CM618322
10-15	35	22-30	11	5	0,20	CM618330
15-20	35	30-35	11	5	0,20	CM618335

## Tools

### Hand setting tool for cavity metal anchors


**Purpose:**

- mounting of metal anchors.

**Distinctive features:**

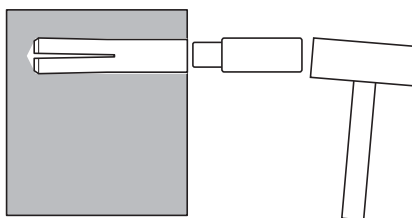
- individual package.

**Characteristics:**

- suitable for all dimension types of anchors.

Weight of pack, kg	Code
0,44	CMT00001

### Hand setting tools for drop-in metal anchors


**Purpose:**

- used to set steel drop-in anchors into drilled holes.

**Distinctive features:**

- individual package.

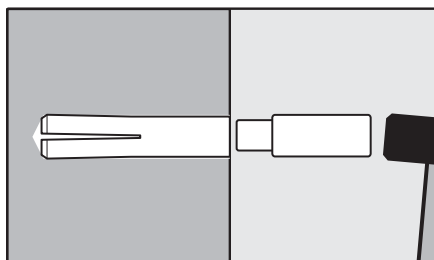
**Characteristics:**

- for anchors from M6 to M16.

Weight of pack, kg	Code
1,14	CMT00002

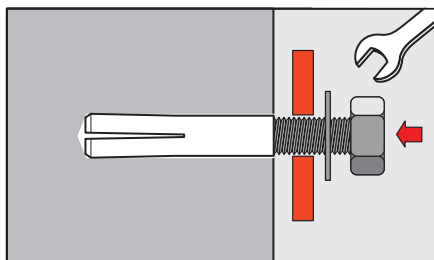
## Mounting instructions

### Steel drop-in anchor



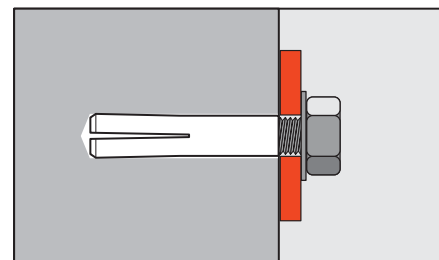
#### 1. Set the anchor

Drill a hole sized as per instructions. Clean out the hole. Drive the anchor into the hole, wedge it with hammer and special tools



#### 2. Fix the mounted part

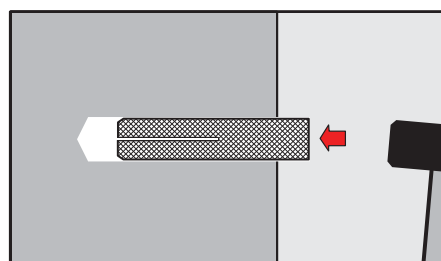
Screw the bolt, screw or pin in with a mounted part suspended on them



#### 3. Make a final fastening

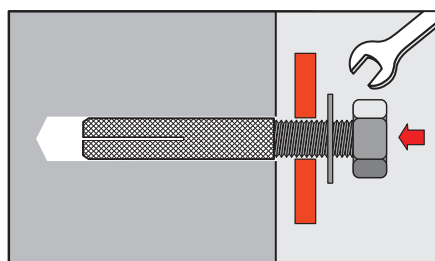
Screwing the bolt, screw or pin in guarantees additional wedging and fastening

### Brass slotted anchor



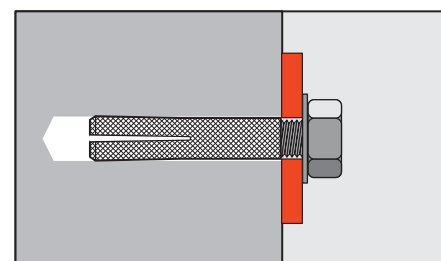
#### 1. Set the anchor

Drill a hole sized as per instructions. Clean out the hole. Drive the anchor into the hole



#### 2. Fix the mounted part

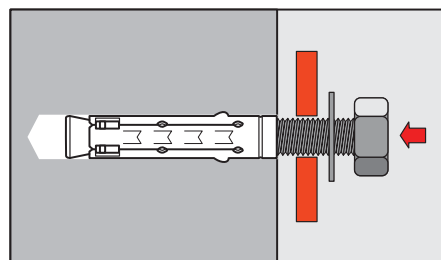
Screw the bolt, screw or pin in with a mounted part suspended on them



#### 3. Make a final fastening

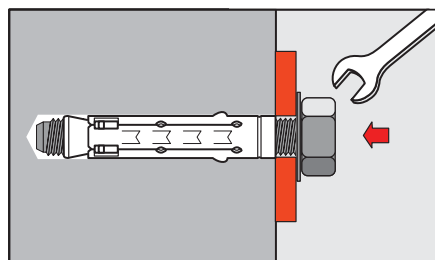
Tightening of bolt, screw or stud guarantees additional wedging and fastening

### Standard, reinforced, wedge anchor



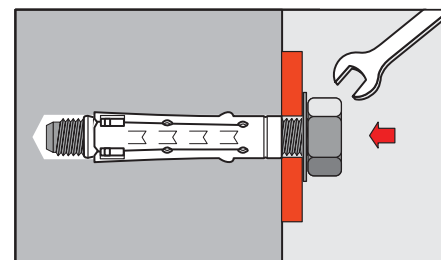
#### 1. Set the anchor

Drill a hole sized as per instructions. Clean out the hole. Drive the anchor into the hole



#### 2. Fix the mounted part

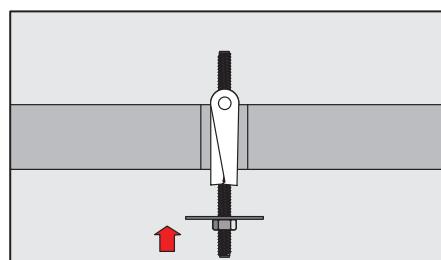
Set the mounted part and fix it with bolt, screw or pin and nut



#### 3. Make a final fastening

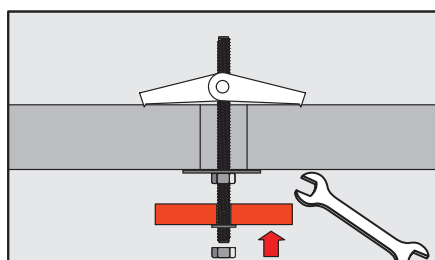
Tightening of bolt, screw or stud guarantees additional wedging and fastening

### Toggle anchor for hollow constructions (with pin, hook, oval head, screw)



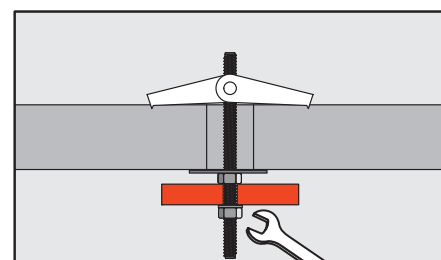
#### 1. Set the anchor

Drill a hole sized as per instructions. Drive the anchor into the hole



#### 2. Fix the mounted part

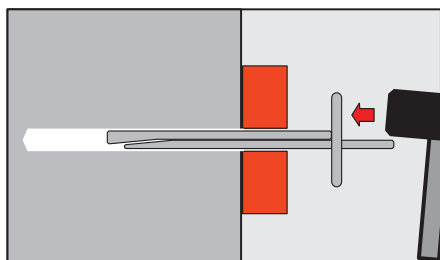
When a screw is inserted the wings expand under spring pressure



#### 3. Make a final fastening

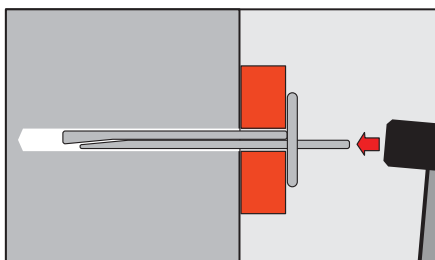
Tightening of nut guarantees final fastening of anchor

## Ceiling wedge anchor



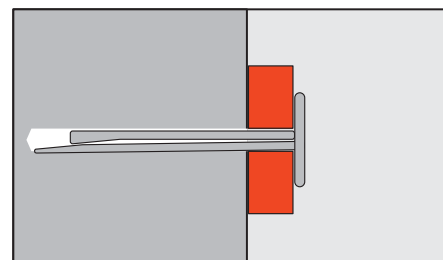
### 1. Set the anchor

Drill a hole sized as per instructions, clean it out. Drive the anchor through the mounted part into the hole



### 2. Fix the mounted part

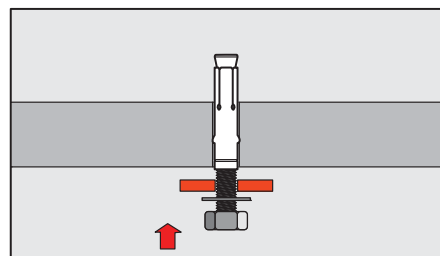
When a screw is inserted its wedge parts shift from one another and expand into the drilled hole providing a secure fastening



### 3. Make a final fastening

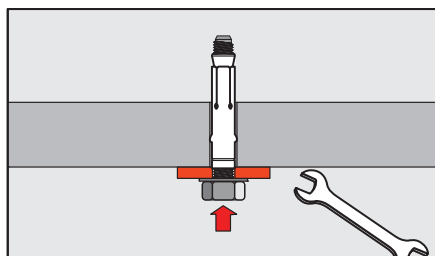
Drive anchor through material to be fastened until washer is flush to surface of material

## Hollow plates anchors



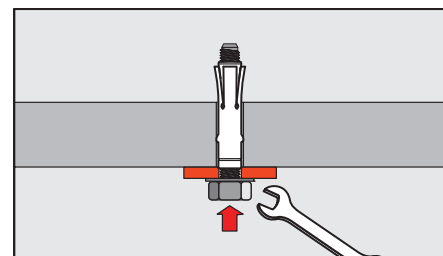
### 1. Set the anchor

Drill a hole sized as per instructions. Clean out the hole. Drive the anchor into the hole



### 2. Fix the mounted part

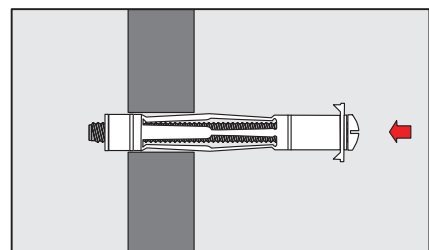
Screw in bolt, screw, stud or nut and a mounted part suspended on them



### 3. Make a final fastening

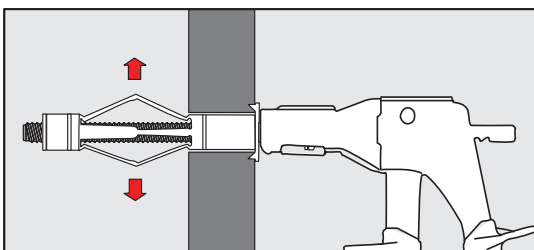
Tightening of bolt, screw or nut guarantees additional wedging and fastening of anchor

## Hollow constructions anchor



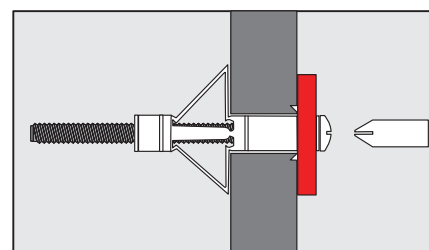
### 1. Set the anchor

Drill a hole sized as per instructions. Drive the anchor into the hole



### 2. Fix the wall plug

Fix the wall plug with special mounting pincers



### 3. Fix the mounted part

Fix the mounted part with a screwdriver



# **HERCULES**

## **Lighting busbar in aluminum duct "Hercules"**

<b>System description .....</b>	<b>314</b>
<b>Straight element .....</b>	<b>322</b>
<b>Feeder and flexible joint .....</b>	<b>326</b>
<b>Plug-in prewired, plug-in and tap-off units .....</b>	<b>328</b>
<b>Fixer .....</b>	<b>335</b>
<b>Wire bracket and bracket .....</b>	<b>336</b>
<b>Hook .....</b>	<b>340</b>
<b>Selection chart of busbar accessories .....</b>	<b>341</b>

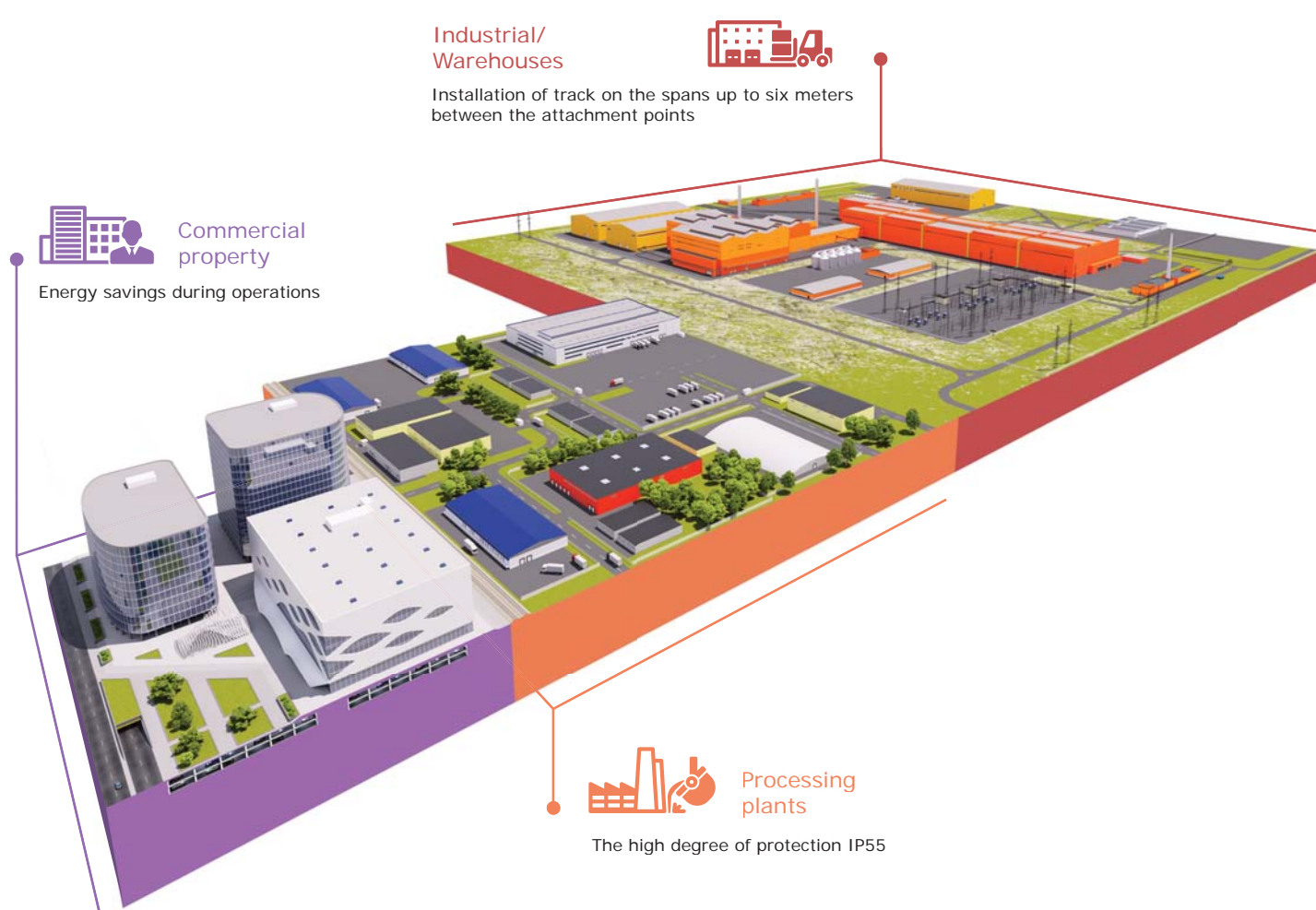
## Lighting busbar system of "Hercules" series

### Product description

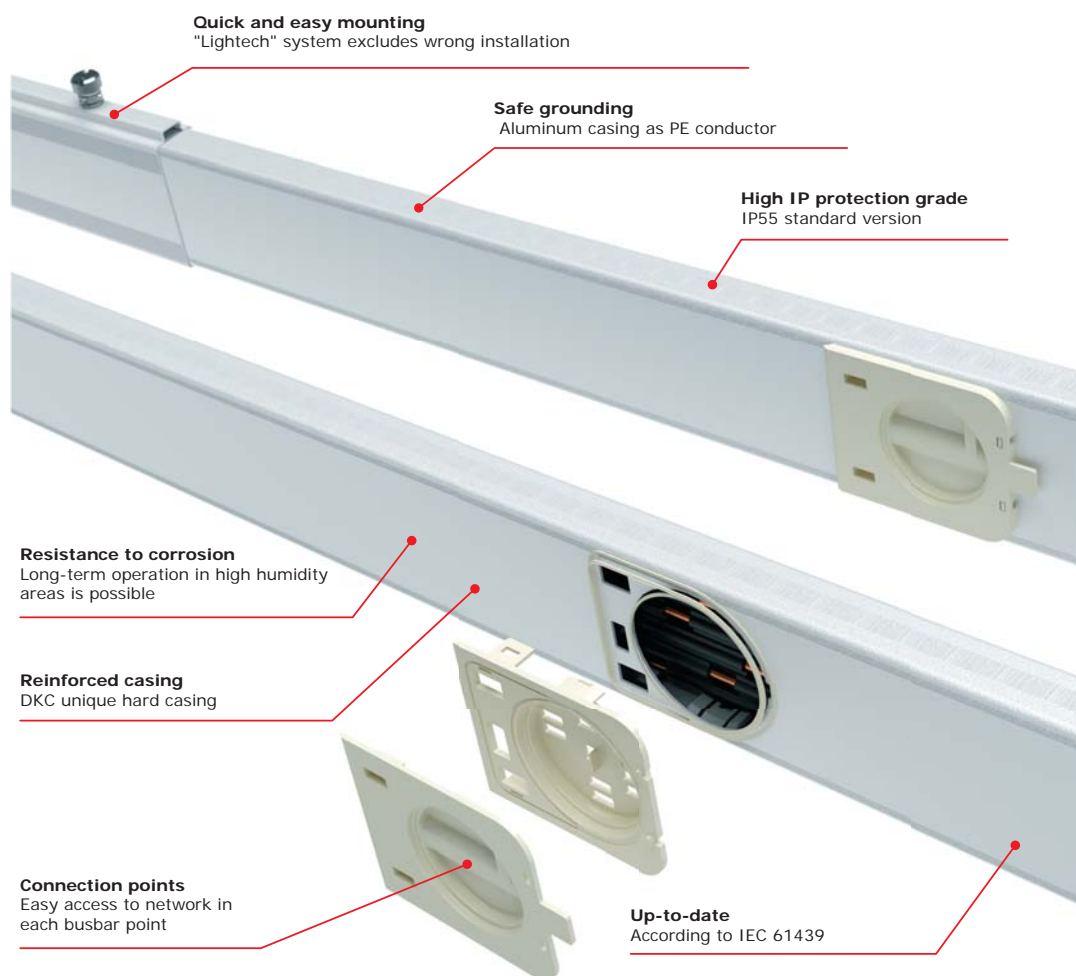
The lighting busbar "Hercules" was produced in compliance with the latest European standards. The busbar is launched with the copper conductors situated within a closed aluminum body with the width of 1 mm which makes it possible to use the busbar in the facilities with high humidity. The system is characterized by easy and quick assembly process of the line, easy replacement of lamps, possibility to hang up lamps on to the busbar or next to it and quick line mounting to the ceilings and metal structures with ropes, chains or stud-bolts.

### Area of application

Busbars are used for power supply lamps and consumers of low power in circuit of AC 25 A and 40 A with voltage 400 V. Due to simple, convenient and rapid replacement of lamps the busbar is used in the large logistic centers, exhibition centers and subway. Due to the aluminum case, resistant to corrosion and high degree of protection IP55 the busbar is used on industrial facilities (greenhouses and farms, food production, automobile factories, shipyards, microelectronics manufacturing plants, cotton-mills). Due to lack of halogens the busbars are used in places of a mass congestion of people (hypermarkets, shops, car showrooms, galleries and museums, restaurants and cafe, airports and railway stations, sports complexes).



### Advantages





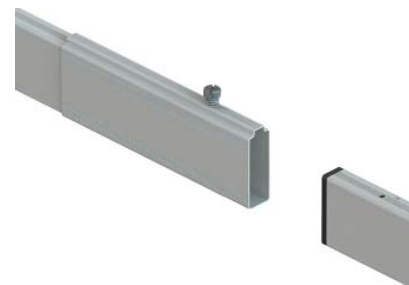
## Distinctive features



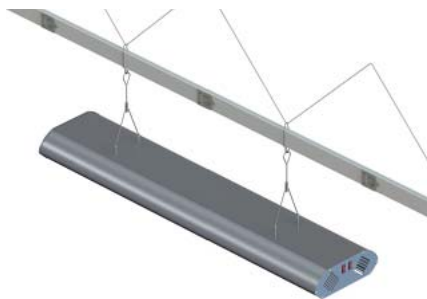
The aluminum body of the busbar is resistant to aggressive environments. In the facilities with high humidity the busbar has a longer life time than its analogues with the body of galvanized steel. It has the wide range of applications.



The tap-off units are marked with different colors in order to identify the chain (phase), the unit is connected to (lamp or consumer). All the tapping points have the covers IP55 which could be opened, but not uncapped/ removed or do not get lost. There is also a specific cable fixer for the aesthetic design of the line.



Quick, convenient and easy mounting of the busbar sections due to the junctions of "male-female" type. Final secure fixation of the position of the joint by means of one screw which is already installed in the section at DKC factory.



Examples of the mounting of the lamps on the busbar together with the specifications are presented in the Standard Manual DKC-LT on the DKC website in the "Support" section.



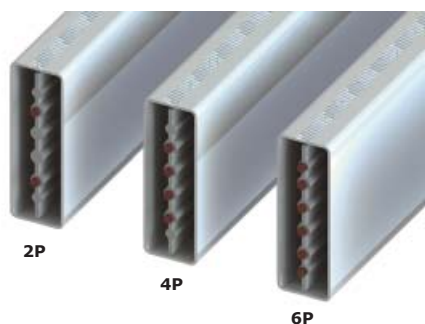
Quick and easy mounting of the line due to the holders for busbar hanging up on the rope or chain of DKC production of "M5 Combitech" series in the DKC product range.



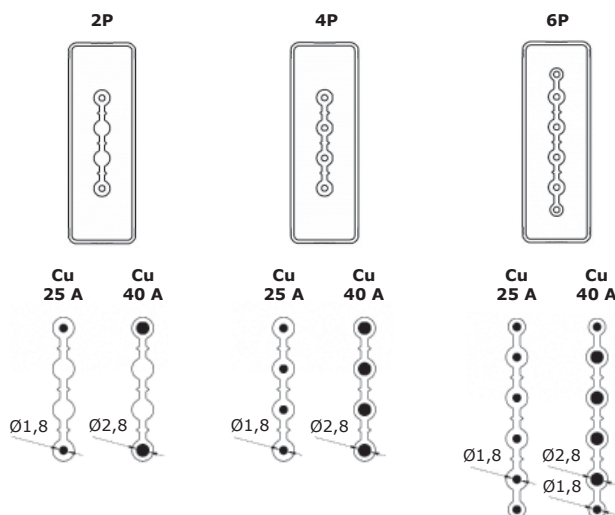
There are the accessories for lining the cable ducts in parallel with the busbar line with the possibility of the suspension to the ceiling in a given place by means of the rope or the chain.

## System structure

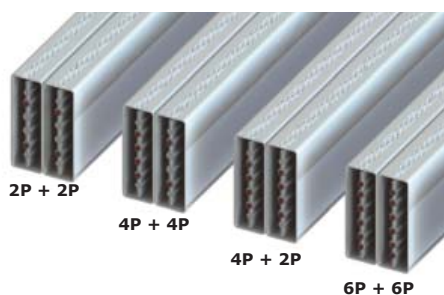
### Single busbars



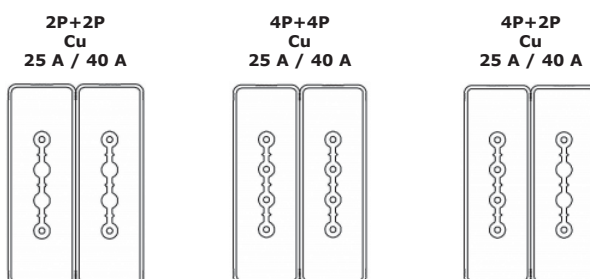
#### Copper buses



### Double busbars



#### Copper buses



### System structure



- |   |                                       |    |                                   |
|---|---------------------------------------|----|-----------------------------------|
| 1 | Straight section of the single busbar | 9  | Cable fixer                       |
| 2 | Straight section of the double busbar | 10 | Holder for (wire) rope or chain   |
| 3 | Flexible turn of the single busbar    | 11 | Tap-off unit with phase selection |
| 4 | Flexible turn of the double busbar    | 12 | Simple holder with a latch        |
| 5 | Feeding element                       | 13 | Universal holder                  |
| 6 | Plug                                  | 14 | Hook                              |
| 7 | Tap-off unit with fixed polarity N/L1 | 15 | Cable duct holder                 |
| 8 | Tap-off unit with fixed polarity N/L2 |    |                                   |

### Regulatory-technical base for the use of the DKC lighting busbars\*

1. Standard manual DKC-LT-2015
2. Installation instructions for the lighting busbar
3. Storage solutions from DKC – off-the-shelf solutions for the lighting arrangement by means of the DKC busbar in A modern warehouse complex of "B" class
4. Certificates

\* On the issue of receiving the regulatory and technical documents please contact the branch offices of DKC or download from the DKC website

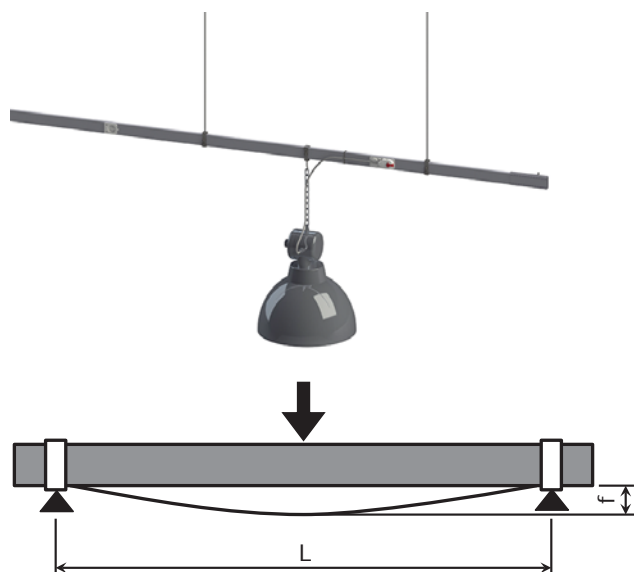
## Technical characteristics

General characteristics		Lighting busbar "Hercules"													
Rated operational current (40 °C) Inc, A		25							40						
Rated operation voltage Ue, W		400							400						
Rated voltage of insulation Ui, W		690							690						
Rated impulse withstand voltage (peak voltage) U <sub>imp</sub> , B		6000							6000						
Rated frequency f <sub>n</sub> , Hz		50/60							50/60						
Conductors' material (Cu – copper)		Cu							Cu						
Quantity of conductors (buses) within the busbar body		2	4	6	2+2	2+4	4+4	6+6	2	4	6	2+2	2+4	4+4	6+6
Busbar type and quantity of chains (circuits) (single – 1, double – 2)		single			double				single			double			
Standard quantity of tapping points (can be changed on request)		1, 2, 3			2, 4, 6				1, 2, 3			2, 4, 6			
Standard distance between tapping points (can be changed on request)		0,75 m (the busbar with the length of 3 m and with 3 tapping points on one side)													
Dimensions of the body (housing) of the busbar, mm		60x20			60x40				60x20			60x40			
Diameter of the phase conductor N, L1, L2, L3 D, mm		1,8			1,8				2,8			2,8			
Section of the phase conductor N, L1, L2, L3 S, mm		2,54			2,54				6,16			6,16			
Insulation of phase conductors		along the full length it is fire-resistant and halogen free; there is no insulation only in tapping points (in places of plug-in connections)													
Protective zero conductor PE		busbar body (housing)													
Material of the busbar body (housing)		aluminum alloy AL 6060													
Thickness of the busbar body, mm		1,00													
Section of the busbar body (protective conductor PE) S, mm <sup>2</sup>		140			280				140			280			
Section of the protective conductor PE (of its body) equivalent to the section of copper S <sub>cu</sub> , mm <sup>2</sup>		84			168				84			168			
Transient resistance of bodies' connections of two busbars according to GOST P 52796-2007 (p.9.10), mOm		7,04													
Information about conductors															
Active resistance of the phase bus (20 °C) R <sub>20</sub> , mOm/m		2,97							2,70						
Reactive resistance of the phase bus by 50 Hz X, mOm/m		0,20							0,45						
Full resistance of the phase bus (impedance) Z, mOm/m		3,23							8,27						
Active resistance of the phase bus by maximum operating temperature R <sub>t</sub> , mOm/m		6,52							8,16						
Short circuit															
Rated short-time withstand current (rated current K.3.) I <sub>cw</sub> , kA		3,1							6,1						
Rated surge current of the short circuit (peak current K.3.) I <sub>pk</sub> , kA		4,8							10,6						
Maximum temperature limit (thermal load) I <sup>2</sup> t, A2·c·10 <sup>3</sup>		230,4							1123,6						
Other characteristics															
Emergency circuit resistance R <sub>0</sub> , mOm/m		15,95							6,97						
Reactive resistance of the emergency circuit X <sub>0</sub> , mOm/m		1,57							0,65						
Impedance of the emergency circuit Z <sub>0</sub> , mPm/m		16,03							7						
Factor (ration) of the voltage loss k, (W/m/A)·10 <sup>-6</sup> ΔV = k · L · Ie · 10 <sup>-6</sup>	cos φ = 0,70	6,03							2,22						
	cos φ = 0,75	6,42							2,36						
	cos φ = 0,80	6,80							2,50						
	cos φ = 0,85	7,17							2,63						
With distributed load ΔU = k · L · Ie · 10 <sup>-6</sup> , W	cos φ = 0,90	7,54							2,76						
With full load on other end ΔU = 2 · k · L · Ie · 10 <sup>-6</sup> , W	cos φ = 0,95	7,89							2,88						
	cos φ = 1,00	8,16							2,97						
Protection degree (class) IP		55													
Rigidity IK		06													
Operating position of the busbar in service		edgewise; tapping points on each													
Maximum distance between fastenings (in detail: Loads and cambers – on the load curves), m		6													
Standards		TR TS 004/2011, FS № 123-Φ3, GOST IEC 61439-1/6, GOST P 51321.2-2009, GOST 26346-84													
Requirement to a correct connection of branch nodes according to GOST P 51321.2-2009 (p.7.1.5) – protection against installation errors		complying with the following requirement: the structure of tapping units does not allow the possibility of their incorrect installation													
The continuity of the electrical supply (Dismantling / installation of new fixtures)		tap-off units together with lamps can be switched on and off without removing the voltage in the busbar													
Lifetime before busbar replacement		25 years													

### Correction factor to determine the value of current-carrying capacity in accordance with the temperature in a premise (GOST P 51321.2-2009 p. 6.1.1.3)

The initial temperature of the ambient air for the busbar	T	°C	35	40	45	50
Correction factor in accordance with the temperature in a premise, different from the rated temperature equal to 40 °C	k <sub>1</sub>	%	1,05	1	0,94	0,82

## Load curves by different cambers



The load curves are graphed according to GOST 26346-84 "Lighting busbars".

In accordance with the paragraph 3.9, the busbars in the operating position must withstand the load of the weight of the lamps attached to them; the value of permanent deformation should not exceed 5 mm per 1 m of the busbar.

Permanent deformation  $f = 5$  mm on the piece of the busbar with the length  $L = 1000$  mm – this is the camber  $1/200$ .

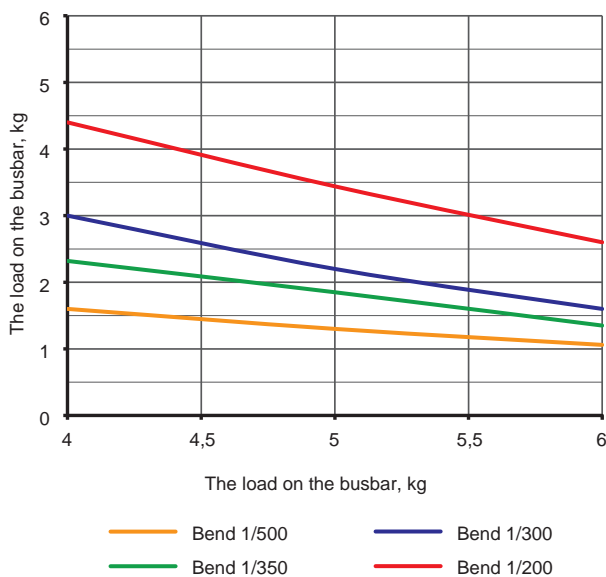
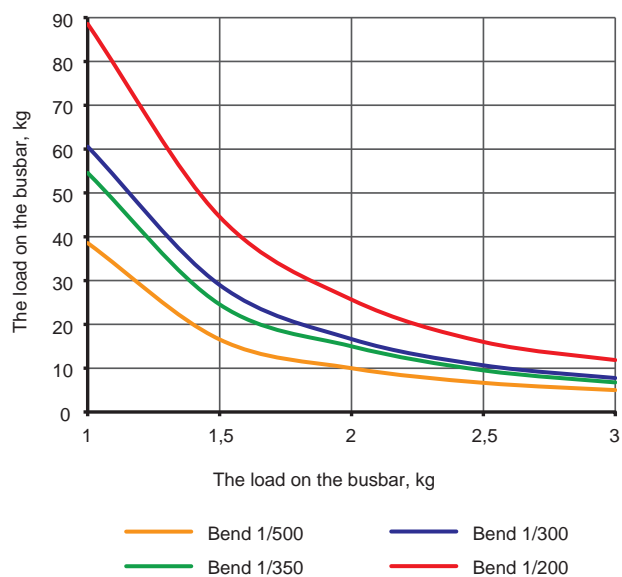
The operating position of the busbar: the busbar is installed edgewise.

The busbar load should be either distributed or concentrated in the middle between two points of support.

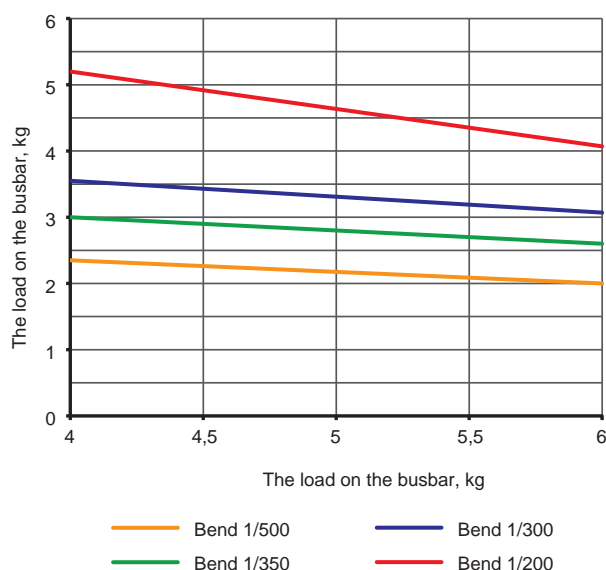
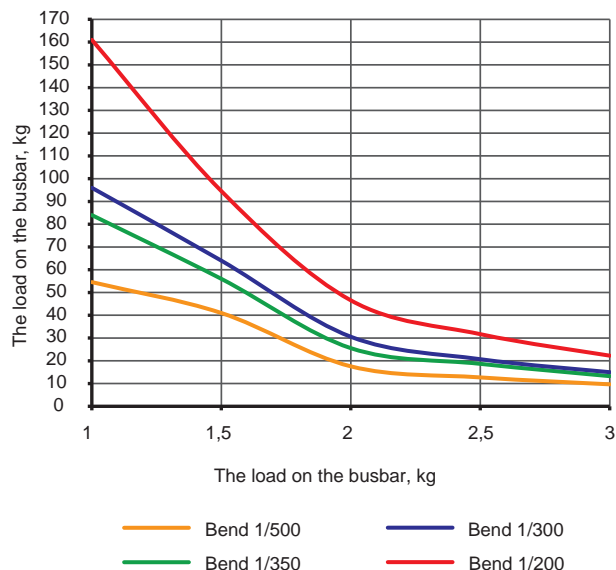
At the concentrated load the busbar is under more severe operating conditions – it carries the load by 30–40 % higher, than at the distributed load.

Below are presented the load curves at the concentrated load.

## Single busbars



## Double busbars



## Coding system

**XX X XX X XXXX XX XXX**

- Execution index:**  
**Combined designation** of the unique characteristics of products (for example, nonstandard length of the straight section)
- Designation of the execution of the standard characteristics of a product**  
**Combined designation of the product design** (see appendix 3)
- Designation of the poles configuration** (see appendix 2)
- Designation of the rated current of the product or of the bus height** (see appendix 1)
- Material of current-carrying part**  
A – aluminum;  
C – copper;  
N – the accessory is compatible with both materials.
- Busbar type**  
PT – main or distributed;  
LT – lighting busbar.

## Examples of using

**LTC25DSP43AA000**

- 000** – standard execution;
- AA** – standard execution;
- SP43** – straight element 3000 mm with 3 sockets;
- D** – 4P (4 conductors);
- 25** – a nominal value of 25 A;
- C** – with copper buses;
- LT** – lighting busbar.

## Appendix 1. Designation of the rated current of the busbar or designation of the accessory

25	25 Ampere
40	40 Ampere
70	accessory

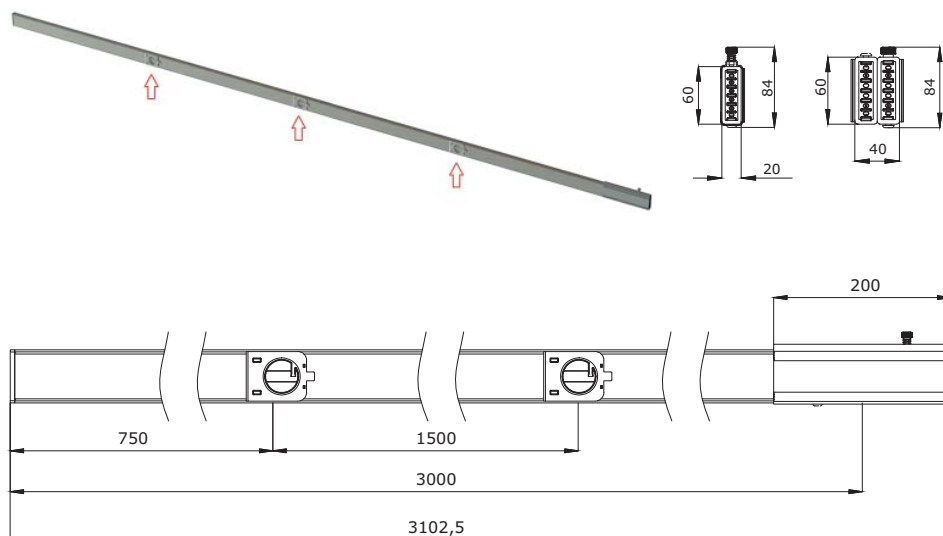
## Appendix 2. Designation of the poles configuration

A	2P
B	2P+2P
C	3P
D	3P+Fe (4P)
F	4P+4P
L	6P
M	6P+6P
N	4P+2P
P	2P, 4P, 6P
Q	2P+2P, 4P+4P, 6P+6P, 4P+2P
Z	multi-purpose (accessories, brackets, mobile contacts)

### Appendix 3. Combined designation of the product design

FED3	feeder (feeding element/battery) + plug type 1
FED4	feeder (feeding element/ battery) + plug type 2
FIU1	mounting bracket type 1
FIU2	mounting bracket type 2
FIU3	mounting bracket type 3
FIU4	mounting bracket type 4
FIU6	mounting bracket type 6
FIU7	mounting bracket type 7
FLXJ	flexible connector
MC01	mobile contact 16 Ampere – N without fuse
MC02	mobile contact 16 Ampere – phase with fuse
MC03	mobile contact 16 Ampere – phase with fuse
MC04	mobile contact 6,3 Ampere – phase with fuse
PP01	tap-off unit with the cable 10 Ampere N/L1 – cable 3x1; 0,8 meters H05Z1Z1F
PP02	tap-off unit with the cable 10 Ampere N/L2 – cable 3x1; 0,8 meters H05Z1Z1F
PP03	tap-off unit with the cable 10 Ampere N/L3 – cable 3x1; 0,8 meters H05Z1Z1F
PP04	tap-off unit with the cable 10 Ampere L2/L3 – cable 3x1; 0,8 meters H05Z1Z1F
PP05	tap-off unit with the cable 10 Ampere N/L1 + L4/L5 – cable 5x1; 0,8 meters H05Z1Z1F
PP06	tap-off unit with the cable 10 Ampere N/L2 + L4/L5 – cable 5x1; 0,8 meters H05Z1Z1F
PP07	tap-off unit with the cable 10 Ampere N/L3 + L4/L5 – cable 5x1; 0,8 meters H05Z1Z1F
PP08	tap-off unit with the cable 10 Ampere L2/L3 + L4/L5 – cable 5x1; 0,8 meters H05Z1Z1F
PP09	tap-off unit with the cable 10 Ampere N/L1/L2/L3 – cable 5x1; 0,8 meters H05Z1Z1F
PP11	tap-off unit with the cable 10 Ampere N/L1 – cable 3x1; 3 meters H05Z1Z1F
PP12	tap-off unit with the cable 10 Ampere N/L2 – cable 3x1; 3 meters H05Z1Z1F
PP13	tap-off unit with the cable 10 Ampere N/L3 – cable 3x1; 3 meters H05Z1Z1F
PP14	tap-off unit with the cable 10 v L2/L3 – cable 3x1; 3 meters H05Z1Z1F
PP15	tap-off unit with the cable 10 Ampere N/L1 + L4/L5 – cable 5x1; 3 meters H05Z1Z1F
PP16	tap-off unit with the cable 10 Ampere N/L2 + L4/L5 – cable 5x1; 3 meters H05Z1Z1F
PP17	tap-off unit with the cable 10 Ampere N/L3 + L4/L5 – cable 5x1; 3 meters H05Z1Z1F
PP18	tap-off unit with the cable 10 Ampere L2/L3 + L4/L5 – cable 5x1; 3 meters H05Z1Z1F
PP19	tap-off unit with the cable 10 Ampere N/L1/L2/L3 – cable 5x1; 3 meters H05Z1Z1F
PP21	tap-off unit with the cable 10 Ampere N/L1 – cable 3x1,5; 0,8 meters cable FG7(0)M1
PP22	tap-off unit with the cable 10 Ampere N/L2 – cable 3x1,5; 0,8 meters cable FG7(0)M1
PP23	tap-off unit with the cable 10 Ampere N/L3 – cable 3x1,5; 0,8 meters cable FG7(0)M1
PP24	tap-off unit with the cable 10 Ampere L2/L3 – cable 3x1,5; 0,8 meters cable FG7(0)M1
PP31	tap-off unit with the cable 10 Ampere N/L1 – cable 3x1,5; 3 meters cable FG7(0)M1
PP32	tap-off unit with the cable 10 Ampere N/L2 – cable 3x1,5; 3 meters cable FG7(0)M1
PP33	tap-off unit with the cable 10 Ampere N/L3 – cable 3x1,5; 3 meters cable FG7(0)M1
PP34	tap-off unit with the cable 10 Ampere L2/L3 – cable 3x1,5; 3 meters cable FG7(0)M1
PS01	tap-off unit for connection to the busbar, with the function of the phase selection 16 Ampere N/L without fuse
PS02	tap-off unit for connection to the busbar, with the function of the phase selection 16 Ampere N/L with fuse
PS03	tap-off unit for connection to the busbar, with the function of the phase selection 6,3 Ampere N/L with fuse
PS04	tap-off unit for connection to the busbar, with the function of the phase selection 16 Ampere N/L + L4/L5 without fuse
PS05	tap-off unit for connection to the busbar, with the function of the phase selection 16 Ampere N/L + L4/L5 with fuse
PS06	tap-off unit for connection to the busbar, with the function of the phase selection 6,3 Ampere N/L + L4/L5 with fuse
PS07	tap-off unit, with the function of the phase selection 6,3 Ampere N/L with fuse, cable 3x1 0,8 m (H05Z1Z1F)
PS08	tap-off unit, with the function of the phase selection 6,3 Ampere N/L + L4/L5 with fuse, cable 5x1 0,8 m (H05Z1Z1F)
PS09	tap-off unit, with the function of the phase selection 16 Ampere N/L without fuse, cable 3x1 0,8 m (H05Z1Z1F)
PS10	tap-off unit, with the function of the phase selection 16 Ampere N/L + L4/L4 without fuse, cable 5x1 0,8 m (H05Z1Z1F)
SP41	straight element 3000 mm with 2 sockets
SP42	straight element 3000 mm with 1 socket
SP43	straight element 3000 mm with 3 sockets
SP44	straight element 1000 mm with 1 socket

## Straight element 3 meter – 3 plug-in



### Purpose:

- construction of the busbar line, possible connection;
- with bipolar busbars 2P are applied only tap-off units N/L3.

### Section mounting:

- sections are connected by type "male-female" with the final fixing by means of a spring-loaded screw.

### Mounting of the tap-off unit on the section:

- open the cover of the tapping point to 180°;
- raise the color fixer on the tap-off unit;
- insert the tap-off unit into the tapping point;
- sink the color fixer in the tap-off unit.

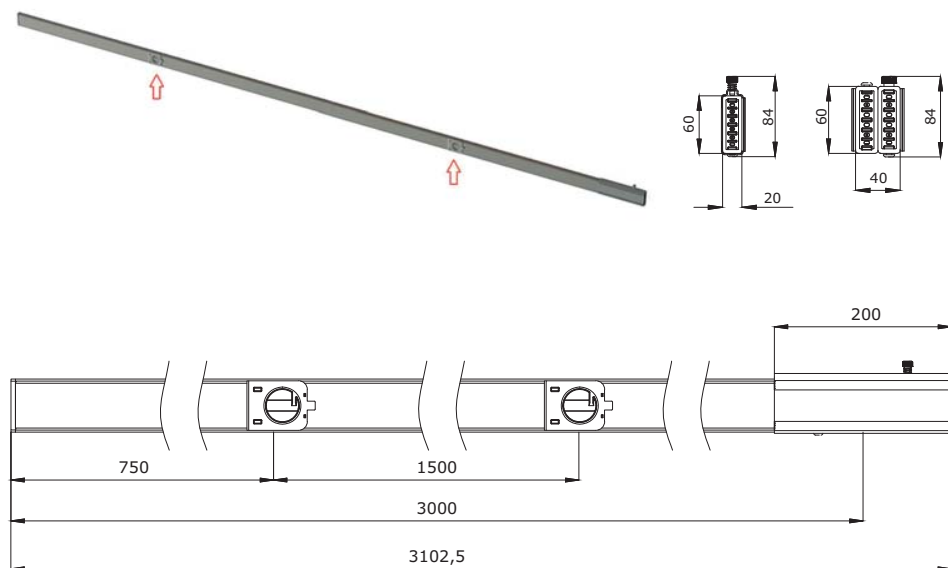
### Characteristics:

- on the single busbar – 3 tapping points only at one side (3+0);
- on the double busbar – 3 tapping points at each side (3+3);
- each tapping point is equipped with a non-removable opening cover;
- rated current at 40 °C – 25 and 40 A;
- conductors' material – copper;
- body's material (material of the busbar body) – aluminum;
- thickness of the wall of the body (housing) – 1 mm;
- rated voltage – 400 V;
- protection degree IP55, rigidity IK06;
- size of the single busbar 60x20 mm;
- size of the double busbar 60x40 mm.

Rated current, A	Quantity of tapping points at each side, pcs.	Busbar type	Quantity of the conductors in the busbar	Busbar polarity	Weight, kg	Code
25	3+0	single	2P	L3 + N + PE (body)	1,864	LTC25ASP43AA000
			4P	L3 + L2 + L1 + N + PE (body)	2,164	LTC25DSP43AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	2,464	LTC25LSP43AA000
	3+3	double	2P+2P	(L3+N) + (L3+N) + PE (body)	3,728	LTC25BSP43AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	4,328	LTC25FSP43AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	3,668	LTC25NSP43AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	4,928	LTC25MSP43AA000
40	3+0	single	2P	L3 + N + PE (body)	1,964	LTC40ASP43AA000
			4P	L3 + L2 + L1 + N + PE (body)	2,364	LTC40DSP43AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	2,764	LTC40LSP43AA000
	3+3	double	2P+2P	(L3+N) + (L3+N) + PE (body)	3,928	LTC40BSP43AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	4,728	LTC40FSP43AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	4,328	LTC40NSP43AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	5,528	LTC40MSP43AA000



## Straight element 3 meter – 2 plug-in



### Purpose:

- construction of the busbar line, possible connection.

### Section mounting:

- sections are connected by type "male-female" with the final fixing by means of a spring-loaded screw.

### Mounting of the tap-off unit on the section:

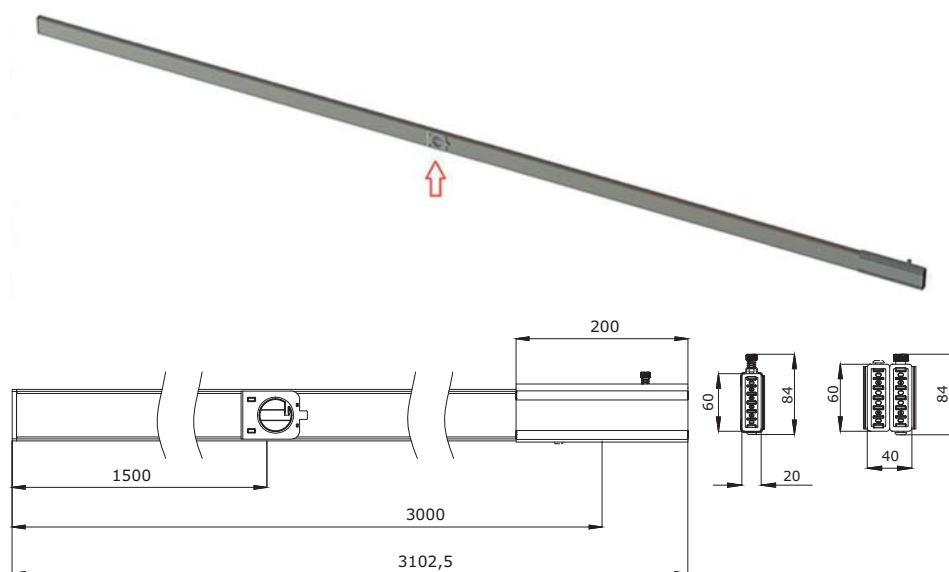
- open the cover of the tapping point to 180°;
- raise the color fixer on the tap-off unit;
- insert the tap-off unit into the tapping point;
- sink the color fixer in the tap-off unit.

### Characteristics:

- on the single busbar – 2 tapping points only at one side (2+0);
- on the double busbar – 2 tapping points at each side (2+2);
- each tapping point is equipped with a non-removable opening cover;
- rated current at 40 °C – 25 and 40 A;
- conductors' material – copper;
- body's material (material of the busbar body) – aluminum;
- thickness of the wall of the body (housing) – 1 mm;
- rated voltage – 400 W;
- protection degree IP55, rigidity IK06;
- size of the single busbar 60x20 mm;
- size of the double busbar 60x40 mm.

Rated current, A	Quantity of tapping points at each side, pcs.	Busbar type	Quantity of the conductors in the busbar	Busbar polarity	Weight, kg	Code
25	2+0	single	2P	L3 + N + PE (body)	1,864	LTC25ASP41AA300
			4P	L3 + L2 + L1 + N + PE (body)	2,164	LTC25DSP41AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	2,464	LTC25LSP41AA000
	2+2	double	2P+2P	(L3+N) + (L3+N) + PE (body)	3,728	LTC25BSP41AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	4,328	LTC25FSP41AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	3,668	LTC25NSP41AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	4,928	LTC25MSP41AA000
40	2+0	single	2P	L3 + N + PE (body)	1,964	LTC40ASP41AA300
			4P	L3 + L2 + L1 + N + PE (body)	2,364	LTC40DSP41AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	2,764	LTC40LSP41AA000
	2+2	double	2P+2P	(L3+N) + (L3+N) + PE (body)	3,928	LTC40BSP41AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	4,728	LTC40FSP41AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	4,328	LTC40NSP41AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	5,528	LTC40MSP41AA000

## Straight element 3 meter – 1 plug-in



### Purpose:

- construction of the busbar line, possible connection.

### Section mounting:

- sections are connected by type "male-female" with the final fixing by means of a spring-loaded screw.

### Mounting of the tap-off unit on the section:

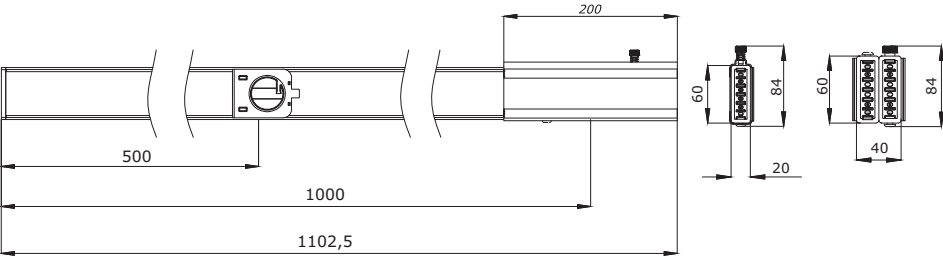
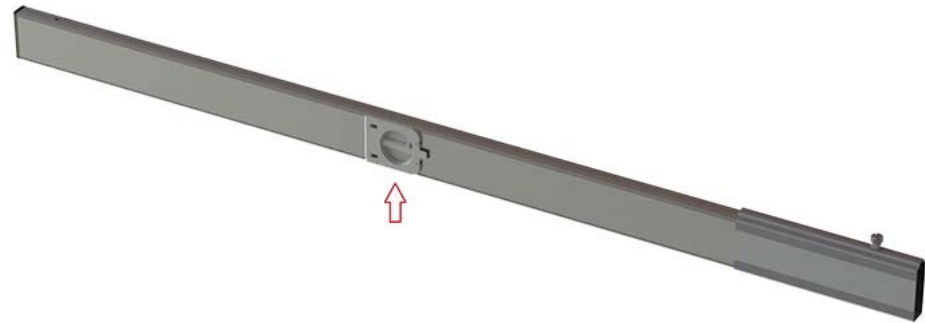
- open the cover of the tapping point to 180°;
- raise the color fixer on the tap-off unit;
- insert the tap-off unit into the tapping point;
- sink the color fixer in the tap-off unit.

### Characteristics:

- on the single busbar – 1 tapping point only at one side (1+0);
- on the double busbar – 1 tapping point at each side (1+1);
- each tapping point is equipped with a non-removable opening cover;
- rated current at 40 °C – 25 and 40 A;
- conductors' material – copper;
- body's material (material of the busbar body) – aluminum;
- thickness of the wall of the body (housing) – 1 mm;
- rated voltage – 400 W;
- protection degree IP55, rigidity IK06;
- size of the single busbar 60x20 mm;
- size of the double busbar 60x40 mm.

Rated current, A	Quantity of tapping points at each side, pcs.	Busbar type	Quantity of the conductors in the busbar	Busbar polarity	Weight, kg	Code
25	1+0	single	2P	L3 + N + PE (body)	1,864	LTC25ASP42AA000
			4P	L3 + L2 + L1 + N + PE (body)	2,164	LTC25DSP42AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	2,464	LTC25LSP42AA000
	1+1	double	2P+2P	(L3+N) + (L3+N) + PE (body)	3,728	LTC25BSP42AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	4,328	LTC25FSP42AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	3,668	LTC25NSP42AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	4,928	LTC25MSP42AA000
40	1+0	single	2P	L3 + N + PE (body)	1,964	LTC40ASP42AA000
			4P	L3 + L2 + L1 + N + PE (body)	2,364	LTC40DSP42AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	2,764	LTC40LSP42AA000
	1+1	double	2P+2P	(L3+N) + (L3+N) + PE (body)	3,928	LTC40BSP42AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	4,728	LTC40FSP42AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	4,328	LTC40NSP42AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	5,528	LTC40MSP42AA000

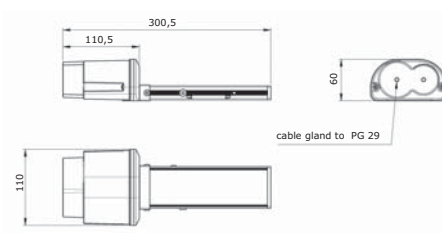
Straight element 1 meter – 1 plug-in



- Purpose:**
- construction of the busbar line, possible connection.
- Section mounting:**
- sections are connected by type "male-female" with the final fixing by means of a spring-loaded screw.
- Mounting of the tap-off unit on the section:**
- open the cover of the tapping point to 180°;
  - raise the color fixer on the tap-off unit;
  - insert the tap-off unit into the tapping point;
  - sink the color fixer in the tap-off unit.
- Characteristics:**
- on the single busbar – 1 tapping point only at one side (1+0);
  - on the double busbar – 1 tapping point at each side (1+1);
  - each tapping point is equipped with a non-removable opening cover;
  - rated current at 40 °C – 25 and 40 A;
  - conductors' material – copper;
  - body's material (material of the busbar body) – aluminum;
  - thickness of the body wall (housing) – 1 mm;
  - rated voltage – 400 W;
  - protection degree IP55, rigidity IK06;
  - size of the single busbar 60x20 mm;
  - size of the double busbar 60x40 mm.

Rated current, A	Quantity of tapping points at each side, pcs.	Busbar type	Quantity of the conductors in the busbar	Busbar polarity	Weight, kg	Code
25	1+0	single	2P	L3 + N + PE (body)	0,621	LTC25ASP44AA000
			4P	L3 + L2 + L1 + N + PE (body)	0,721	LTC25DSP44AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	0,821	LTC25LSP44AA000
	1+1	double	2P+2P	(L3+N) + (L3+N) + PE (body)	1,243	LTC25BSP44AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	1,443	LTC25FSP44AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	1,223	LTC25NSP44AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	1,643	LTC25MSP44AA000
40	1+0	single	2P	L3 + N + PE (body)	0,655	LTC40ASP44AA000
			4P	L3 + L2 + L1 + N + PE (body)	0,788	LTC40DSP44AA000
			6P	L5 + L4 + L3 + L2 + L1 + N + PE (body)	0,921	LTC40LSP44AA000
	1+1	double	2P+2P	(L3+N) + (L3+N) + PE (body)	1,309	LTC40BSP44AA000
			4P+4P	(L3+L2+L1+N) + (L3+L2+L1+N) + PE (body)	1,576	LTC40FSP44AA000
			4P+2P	(L3+L2+L1+N) + (L3+N) + PE (body)	1,443	LTC40NSP44AA000
			6P+6P	(L5+L4+L3+L2+L1+N) + (L5+L4+L3+L2+L1+N) + PE (body)	1,843	LTC40MSP44AA000

## Feeder type 1 + end cover type 2



### Purpose:

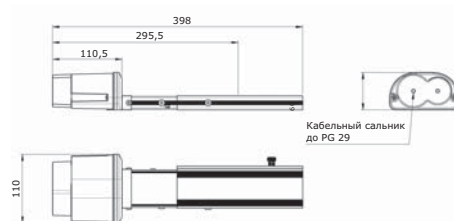
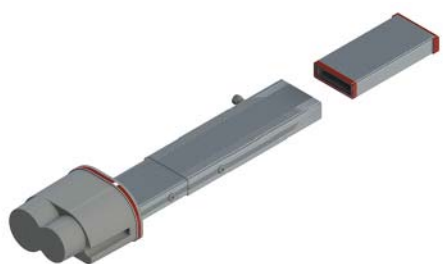
- connection of the busbar line to the network (circuit) and encapsulation of the line's end in order to provide the protection degree IP55.

### Characteristics:

- rated current at 40 °C – 25 and 40 A;
- conductors' material – copper;
- rated voltage – 400 W;
- protection degree IP55;
- material – thermoplastics and aluminum (straight section);
- for insertion of a cable or a pipe – possible installation of a gland, for example, a cable clamp (code 53000).

Rated current, A	Busbar type	Quantity of the conductors in the busbar	Code
25	single	2P	LTC25DFED3AA000
		4P	LTC25DFED3AA000
		6P	LTC25LFED3AA000
	double	2P+2P	LTC25FFED3AA000
		4P+4P	
		4P+2P	
40	single	6P+6P	LTC25MFED3AA000
		2P	LTC40DFED3AA000
		4P	
		6P	
	double	2P+2P	LTC40FFED3AA000
		4P+4P	
		4P+2P	
		6P+6P	
			LTC40MFED3AA000

## Feeder type 2 + end cover type 1



### Purpose:

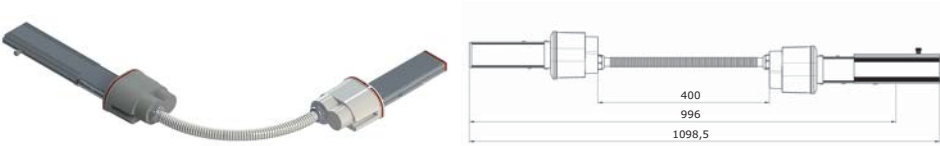
- connection of the busbar line to the network (circuit) and encapsulation of the line's end in order to provide the protection degree IP55.

### Characteristics:

- rated current at 40 °C – 25 and 40 A;
- conductors' material – copper;
- rated voltage – 400 W;
- protection degree IP55;
- material – thermoplastics and aluminum (straight section);
- for insertion of a cable or a pipe – possible installation of a gland, for example, a cable clamp (code 53000).

Rated current, A	Busbar type	Quantity of the conductors in the busbar	Code
25	single	2P	LTC25DFED4AA000
		4P	LTC25DFED4AA000
		6P	LTC25LFED4AA000
	double	2P+2P	LTC25FFED4AA000
		4P+4P	
		4P+2P	
40	single	6P+6P	LTC25MFED4AA000
		2P	LTC40DFED4AA000
		4P	
		6P	
	double	2P+2P	LTC40FFED4AA000
		4P+4P	
		4P+2P	
		6P+6P	
			LTC40MFED4AA000

Flexible joint



**Purpose:**

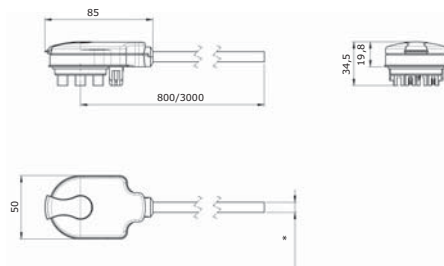
- for turns of the busbar line at any angle in any direction;
- change of the level;
- bypassing an obstruction (the length of the central part of the flexible connector – 400 mm).

**Characteristics:**

- rated current at 40 °C – 25 and 40 A;
- conductors’ material - copper;
- rated voltage – 400 W;
- protection degree – IP55;
- material – thermoplastics and aluminum (straight section).

Rated current, A	Busbar type	Quantity of the conductors in the busbar	Code
25	single	2P	LTC25DFLXJAA000
		4P	LTC25DFLXJAA000
		6P	LTC25LFLXJAA000
	double	2P+2P	LTC25FFLXJAA000
		4P+4P	
		4P+2P	
40	single	6P+6P	LTC25MFLXJAA000
	single	2P	LTC40DFLXJAA000
		4P	
		6P	LTC40LFLXJAA000
	double	2P+2P	LTC40FFLXJAA000
		4P+4P	
		4P+2P	
		6P+6P	LTC40MFLXJAA000

## Prewired plug-in N/L1, with cable


**Purpose:**

- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).

**Mounting conditions:**

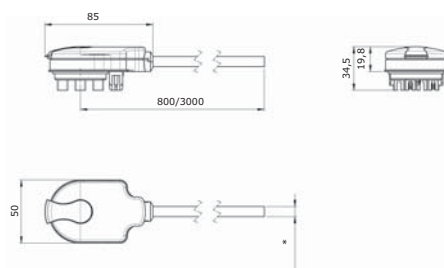
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
- install lamp holders on the busbar section with a latch (latchup);
- open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.

**Characteristics:**

- color of the fixer – red
- (different colors – for easy indication, from which phase the unit is supplied with power);
- cable diameter H05Z1Z1F 3x1 mm<sup>2</sup> 8 mm;
- cable diameter FG07M1 3x1,5 mm<sup>2</sup> 12,5 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L1 + PE	4P, 6P, 4P+4P, 4P+2P (installation in 4P), 6P+6P	red	800	H05Z1Z1F 3x1 mm <sup>2</sup>	0,106	LTN70APP01AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,245	LTN70APP21AA000
				3000	H05Z1Z1F 3x1 mm <sup>2</sup>	0,280	LTN70APP11AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,820	LTN70APP31AA000

## Prewired plug-in N/L1+L4/L5, with cable


**Purpose:**

- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).

**Mounting conditions:**

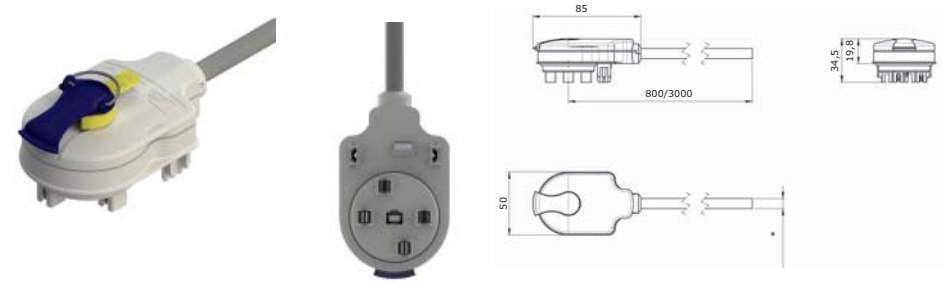
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
- install lamp holders on the busbar section with a latch (latchup);
- open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.

**Characteristics:**

- color of the fixer – green
- (different colors – for easy indication, from which phase the unit is supplied with power);
- cable diameter H05Z1Z1F 5x1 mm<sup>2</sup> 9,8 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L1+L4/L5 + PE	6P, 6P+6P	green	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,126	LTN70APP05AA000
				3000	H05Z1Z1F 5x1 mm <sup>2</sup>	0,380	LTN70APP15AA000

Prewired plug-in N/L2, with cable



- Purpose:**
- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).
- Mounting conditions:**
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
  - install lamp holders on the busbar section with a latch (latchup);
  - open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.
- Characteristics:**
- color of the fixer – blue (different colors – for easy indication, from which phase the unit is supplied with power);
  - cable diameter H05Z1Z1F 3x1 mm<sup>2</sup> 8 mm;
  - cable diameter FG07M1 3x1,5 mm<sup>2</sup> 12,5 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L2 + PE	4P, 6P, 4P+4P, 4P+2P (installation in 4P), 6P+6P	blue	800	H05Z1Z1F 3x1 mm <sup>2</sup>	0,106	LTN70APP02AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,245	LTN70APP22AA000
				3000	H05Z1Z1F 3x1 mm <sup>2</sup>	0,280	LTN70APP12AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,820	LTN70APP32AA000

Prewired plug-in N/L2+L4/L5, with cable

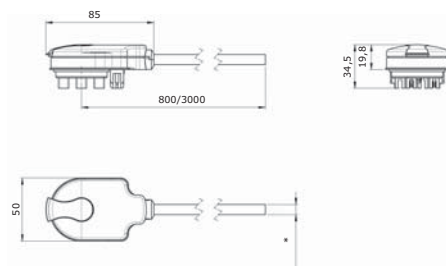


- Purpose:**
- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).
- Mounting conditions:**
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
  - install lamp holders on the busbar section with a latch (latchup);
  - open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.
- Characteristics:**
- color of the fixer – light blue (different colors – for easy indication, from which phase the unit is supplied with power);
  - cable diameter H05Z1Z1F 5x1 mm<sup>2</sup> 9,8 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L2+L4/L5 + PE	6P, 6P+6P	light blue	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,126	LTN70APP06AA000
				3000	H05Z1Z1F 5x1 mm <sup>2</sup>	0,380	LTN70APP16AA000



## Prewired plug-in N/L3, with cable


**Purpose:**

- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).

**Mounting conditions:**

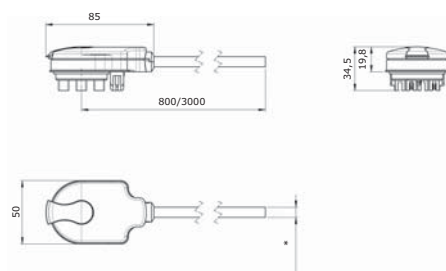
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
- install lamp holders on the busbar section with a latch (latchup);
- open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.

**Characteristics:**

- color of the fixer – dark grey (different colors – for easy indication, from which phase the unit is supplied with power);
- cable diameter H05Z1Z1F 3x1 mm<sup>2</sup> 8 mm;
- cable diameter FG07M1 3x1,5 mm<sup>2</sup> 12,5 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L3 + PE	2P, 4P, 6P, 2P+2P, 4P+4P, 4P+2P, 6P+6P	dark grey	800	H05Z1Z1F 3x1 mm <sup>2</sup>	0,106	LTN70APP03AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,245	LTN70APP23AA000
				3000	H05Z1Z1F 3x1 mm <sup>2</sup>	0,180	LTN70APP13AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,820	LTN70APP33AA000

## Prewired plug-in N/L3+L4/L5, with cable


**Purpose:**

- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).

**Mounting conditions:**

- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
- install lamp holders on the busbar section with a latch (latchup);
- open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.

**Characteristics:**

- color of the fixer – yellow (different colors – for easy indication, from which phase the unit is supplied with power);
- cable diameter H05Z1Z1F 5x1 mm<sup>2</sup> 9,8 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L3+L4/L5 + PE	6P, 6P+6P	yellow	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,126	LTN70APP07AA000
				3000	H05Z1Z1F 5x1 mm <sup>2</sup>	0,380	LTN70APP17AA000

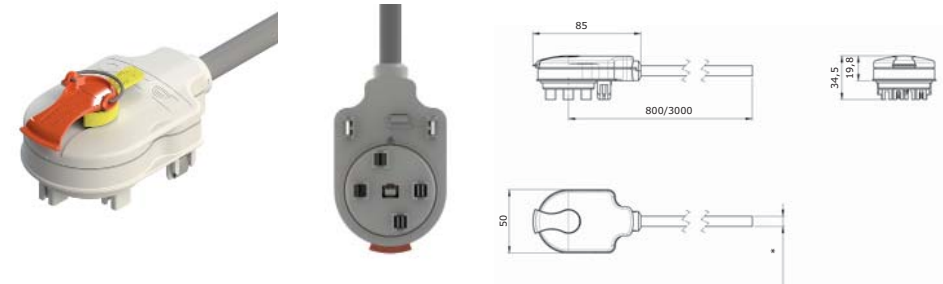
Prewired plug-in L2/L3, with cable



- Purpose:**
- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).
- Mounting conditions:**
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
  - install lamp holders on the busbar section with a latch (latchup);
  - open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.
- Characteristics:**
- color of the fixer –brown (different colors – for easy indication, from which phase the unit is supplied with power);
  - cable diameter H05Z1Z1F 3x1 mm<sup>2</sup> 8 mm;
  - cable diameter FG07M1 3x1,5 mm<sup>2</sup> 12,5 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	L2/L3 + PE	4P, 6P, 4P+4P, 4P+2P (installation in 4P), 6P+6P	brown	800	H05Z1Z1F 3x1 mm <sup>2</sup>	0,106	LTN70APP04AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,245	LTN70APP24AA000
				3000	H05Z1Z1F 3x1 mm <sup>2</sup>	0,280	LTN70APP14AA000
					FG07M1 3x1,5 mm <sup>2</sup>	0,820	LTN70APP34AA000

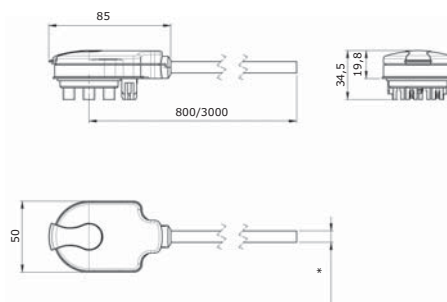
Prewired plug-in L2/L3+L4/L5, with cable



- Purpose:**
- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).
- Mounting conditions:**
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
  - install lamp holders on the busbar section with a latch (latchup);
  - open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.
- Characteristics:**
- color of the fixer – orange (different colors – for easy indication, from which phase the unit is supplied with power);
  - cable diameter H05Z1Z1F 5x1 mm<sup>2</sup> 9,8 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	L2/L3+L4/L5 + PE	6P, 6P+6P	orange	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,126	LTN70APP08AA000
				3000	H05Z1Z1F 5x1 mm <sup>2</sup>	0,380	LTN70APP18AA000

## Prewired plug-in N/L1/L2/L3, with cable



### Purpose:

- connection of lamps to the busbar line at tapping points (a device for releasable contact connection of lamps to sections).

### Mounting conditions:

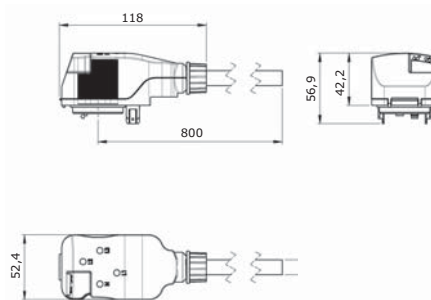
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
- install lamp holders on the busbar section with a latch (latchup);
- open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit.

### Characteristics:

- color of the fixer – light grey (different colors – for easy indication, from which phase the unit is supplied with power);
- cable diameter H05Z1Z1F 5x1 mm<sup>2</sup> 9,8 mm.

Rated current, A	Conductors' configuration (set phases)	Compatibility with the busbar type	Color of the fixer	Cable length, mm	Cable type	Weight, kg	Code
10	N/L1/L2/L3 + PE	4P, 6P, 4P+4P, 4P+2P (installation in 4P), 6P+6P	light grey	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,126	LTN70APP09AA000
				3000	H05Z1Z1F 5x1 mm <sup>2</sup>	0,380	LTN70APP19AA000

## Plug-in phase selection, with cable



### Purpose:

- connection of power outlets, occupancy sensors, dimmers, control devices of emergency lighting and various lamps to the busbar line in the tapping points.

### Mounting conditions:

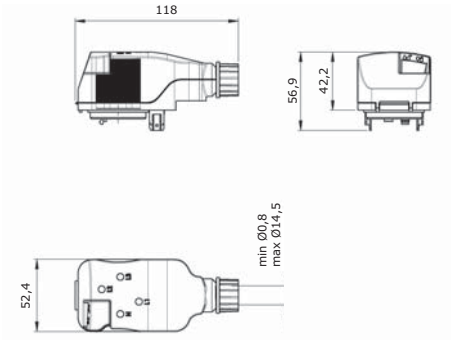
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
- install lamp holders on the busbar section with a latch (latchup);
- open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit;
- N/L – compatibility with any lighting busbar (2P, 4P, 6P, 2P+2P, 4P+4P, 4P+2P, 6P+6P);
- N/L+L4/L5 – compatibility with the busbars 6P, 6P+6P.

### Characteristics:

- simply moving the contacts it is possible to connect to different phases;
- the cable H05Z1Z1F with the section of 3x1 mm<sup>2</sup> – 8 mm in diameter, the minimum cable bending radius of 60 mm, the temperature range by bending flexing from –5 to +70 °C; motionless from –40 to +70 °C; halogen free;
- cable H05Z1Z1F with the section of 5x1 mm<sup>2</sup> – 9,8 mm in diameter, the minimum cable bending radius of 74 mm, the temperature range by bending flexing from –5 to +70 °C; motionless from –40 to +70 °C; halogen free.

Rated current, A	Conductors' configuration	Complete set with/without fuse	Cable length, mm	Cable type	Weight, kg	Code
6,3	N/L + PE	with fuse 5x20 mm	800	H05Z1Z1F 3x1 mm <sup>2</sup>	0,179	LTN70APS07AA000
	N/L+L4/L5 + PE	with fuse 5x20 mm	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,228	LTN70APS08AA000
16	N/L + PE	without fuse	800	H05Z1Z1F 3x1 mm <sup>2</sup>	0,133	LTN70APS09AA000
	N/L+L4/L5 + PE	without fuse	800	H05Z1Z1F 5x1 mm <sup>2</sup>	0,223	LTN70APS10AA000

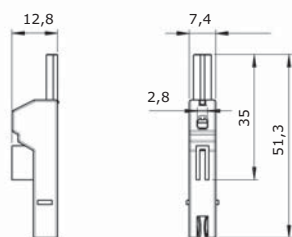
Plug-in phase selection, without cable



- Purpose:**
- connection of power outlets, occupancy sensors, dimmers, control devices of emergency lighting and various lamps to the busbar line in the tapping points.
- Mounting conditions:**
- connect the tap-off unit and holders to a lamp (it is required to carry out works on a table or on the floor);
  - install lamp holders on the busbar section with a latch (latchup);
  - open the cover of the tapping point on the section; raise the color fixer on the tap-off unit; insert the tap-off unit into the tapping point; sink the color fixer in the tap-off unit;
  - N/L – compatibility with any lighting busbar (2P, 4P, 6P, 2P+2P, 4P+4P, 4P+2P, 6P+6P);
  - N/L+L4/L5 – compatibility with the busbars 6P, 6P+6P.
- Characteristics:**
- simply moving the contacts it is possible to connect to different phases;
  - possible input of the cables having an outer diameter from 8 to 14 mm.

Rated current, A	Conductors' configuration	Complete set with/without fuse	Weight, kg	Code
16	N/L + PE	without fuse	0,069	LTN70APS01AA000
16		with fuse 8,5x31,5 mm	0,074	LTN70APS02AA000
6,3		with fuse 5x20 mm	0,071	LTN70APS03AA000
16	N/L+L4/L5 + PE	without fuse	0,065	LTN70APS04AA000
16		with fuse 8,5x31,5 mm	0,075	LTN70APS05AA000
6,3		with fuse 5x20 mm	0,071	LTN70APS06AA000

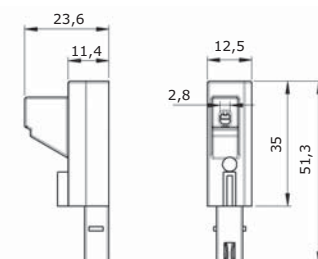
## Mobile contact of 16 A for tap-off unit with phase selection


**Purpose:**

- creating a secure power tap-off.

Rated current, A	Parameters	Weight, kg	Code
16	N – neutral phase protection	0,005	LTN70ZMC01AA000
	L-phase without fuse	0,005	LTN70ZMC02AA000

## Mobile contact with fuse of 16 A for tap-off unit with phase selection


**Purpose:**

- creating a secure power tap-off.

**Characteristics:**

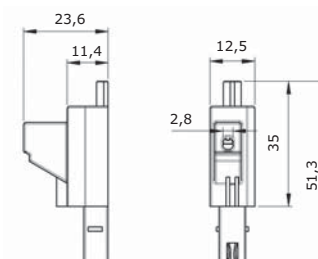
- material – nylon PA6;
- color – black.

**Complete set:**

- safety fuse of 8,5x31,5 mm, 16 A, 400 W, I1 more than 20 kA.

Rated current, A	Parameters	Weight, kg	Code
16	L-phase with safety fuse 8,5x31,5 mm	0,012	LTN70ZMC03AA000
	L-phase without fuse	0,005	LTN70ZMC02AA000

## Mobile contact with fuse of 6,3 A for tap-off unit with phase selection


**Purpose:**

- creating a secure power tap-off.

**Characteristics:**

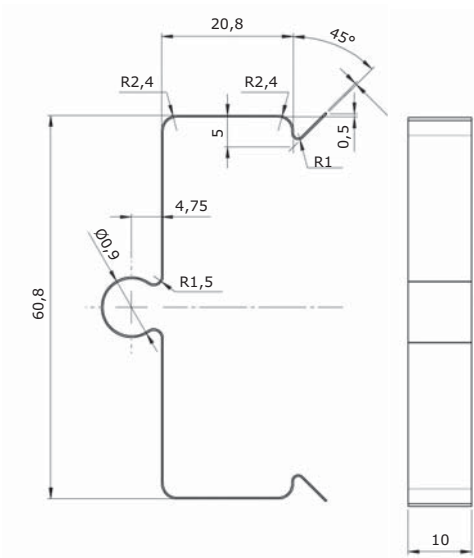
- material – nylon PA6;
- color – black.

**Complete set:**

- safety fuse of 5x20 mm, 250 W.

Rated current, A	Parameters	Weight, kg	Code
6,3	L-phase with safety fuse 5x20 mm	0,011	LTN70ZMC04AA000
	L-phase without fuse	0,005	LTN70ZMC02AA000

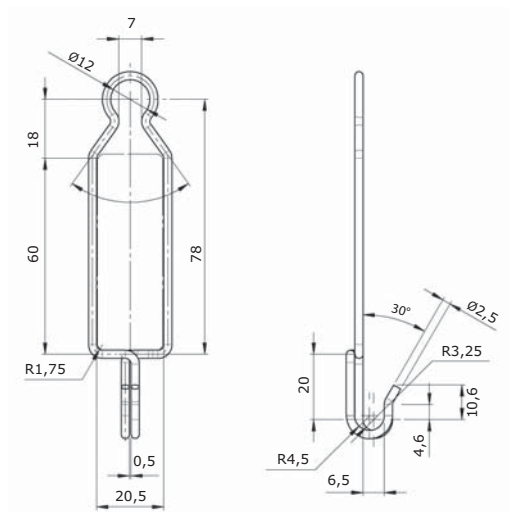
Cable fixer on lighting busbar



- Purpose:**
- aesthetic cable fixation from the tap-off unit to the busbar body.
- Characteristics:**
- material – stainless steel;
  - the fixer is mounted on the straight section of the busbar by a latch (latchup);
  - it is recommended to install fixers in increments of about 300 mm from each other in order to avoid non-aesthetic sagging of a cable.

Name	Purpose		Weight, kg	Code
	busbar type	quantity of the conductors in the busbar		
Cable fixer	for single busbar	2P	0,004	LTN70PFIU7AA000
		4P		
		6P		
	for double busbar	2P+2P	0,005	LTN70QFIU7AA000
		4P+4P		
		4P+2P		
		6P+6P		

## Wire bracket (single)



### Purpose:

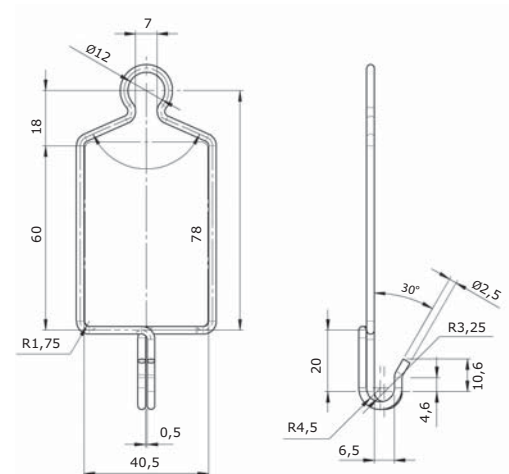
- mounting of the busbar on a steel rope of "M5 Combitech" DKC series hanging up by the upper loop of the holder (for example, code CM620100);
- mounting of the busbar by hanging up on the DKC chain of "M5 Combitech" series (code CM610010);
- mounting of the busbar hanging up by a lower double hook of the lamps or other equipment.

### Characteristics:

- material – stainless steel;
- permissible load of 81 kg (BRN with the margin of 1,7);
- for the maximum diameter of the rope or chain of 7 mm.

Name	Purpose		Permissible load (BRN), kg	Bearable load from the weight of the lamps (with fivefold margin of safety according to GOST 26346-84 p.3.11), kg	Weight of the holder, kg	Code
	busbar type	quantity of the conductors in the busbar				
Busbar holder for hanging up on the (wire) rope or chain	for single busbar	2P	81	25	0,001	LTN70PFIU2AA000
		4P				
		6P				

## Wire bracket (double)



### Purpose:

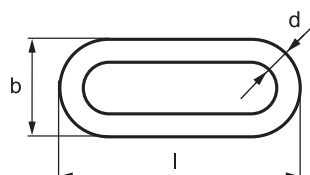
- mounting of the busbar on a steel rope of "M5 Combitech" DKC series hanging up by the upper loop of the holder (for example, code CM620100);
- mounting of lamps to the busbar hanging up by a lower double hook.

### Characteristics:

- material – stainless steel;
- permissible load of 81 kg (BRN with the margin of 1,7);
- for the maximum diameter of the rope or chain of 7 mm.

Name	Purpose		Permissible load (BRN), kg	Bearable load from the weight of the lamps (with fivefold margin of safety according to GOST 26346-84 p.3.11), kg	Weight of the holder, kg	Code
	busbar type	quantity of the conductors in the busbar				
Busbar holder for hanging up on the (wire) rope or chain	for double busbar	2P+2P	81	25	0,013	LTN70QFIU2AA000
		4P+4P				
		4P+2P				
		6P+6P				

## Chain



### Purpose:

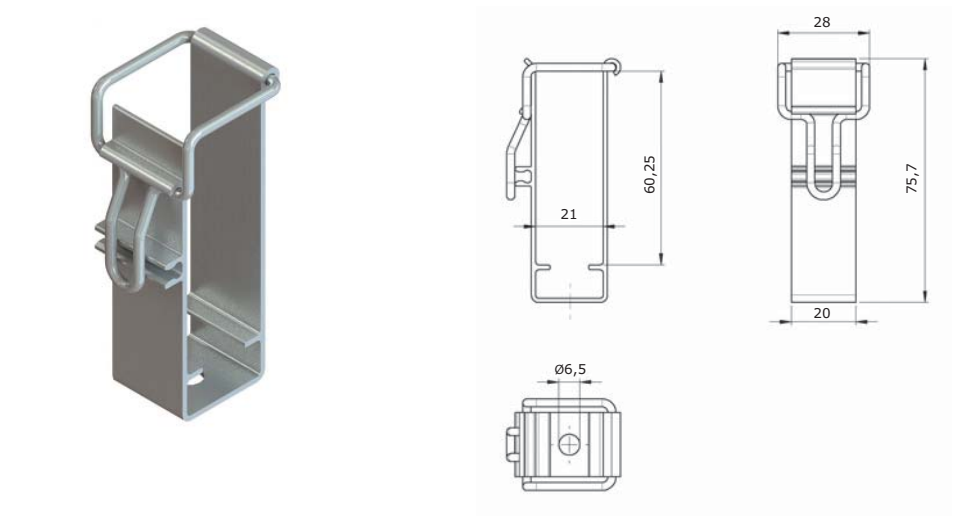
- suspension of low-loaded cable lines.

### Distinctive features:

- high speed of installation;
- the possibility of the suspension at a high altitude.

Thickness of the link $d$ , mm	Length of the link $l$ , mm	Width of the link $b$ , mm	Maximum load, kg	Amount in a package, m	Package weight, kg	Code, variant 1
2,5	29	10	55	30	3,21	CM610010

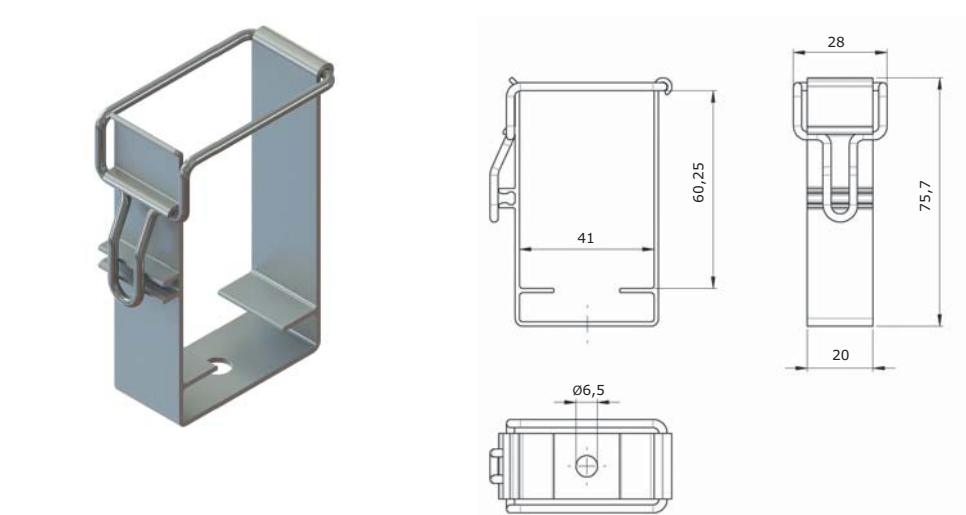
Simple bracket (single)



- Purpose:**
- fixing of the busbar to supporting (load-bearing) surfaces and elements (consoles, brackets), there is a special opening on the holder at the lower side for this purpose.
- Characteristics:**
- permissible load of 93 kg (BRN with the margin of 1,7);
  - material of the holder – aluminum;
  - material of the fixer (lock) – steel;
  - for fixing – an opening of 6,5 mm in diameter;
  - mounting type – by the latch (latchup);
  - for the rigid fixation of the latch on the base of the holder mount in addition a self-tapping screw hemisphere flat terminal PH 3,5x6,5 mm.
- Complete set:**
- holder with a fixer (lock) without metal ware.

Name	Purpose		Permissible load (BRN), kg	Bearable load from the weight of the lamps (with fivefold margin of safety according to GOST 26346-84 n.3.11), kg	Weight of the holder, kg	Code
	busbar type	quantity of the conductors in the busbar				
Busbar holder with latch quickly mountable	for single busbar	2P	93	28	0,019	LTN70PFIU1AA000
		4P				
		6P				

Simple bracket (double)

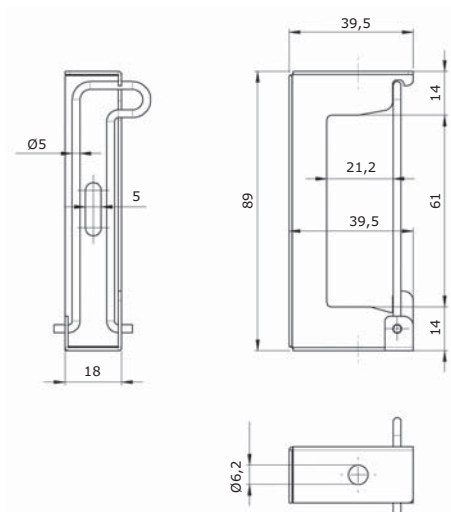


- Purpose:**
- fixing of the busbar to supporting (load-bearing) surfaces and elements (consoles, brackets), there is a special opening on the holder at the lower side for this purpose.
- Characteristics:**
- permissible load of 69,5 kg (BRN with the margin of 1,7);
  - material of the holder – aluminum;
  - material of the fixer (lock) – steel;
  - for fixing – an opening of 6,5 mm in diameter;
  - mounting type – by the latch (latchup);
  - for the rigid fixation of the latch on the base of the holder mount in addition a self-tapping screw hemisphere flat terminal PH 3,5x6,5 mm.
- Complete set:**
- holder with a fixer (lock) without metal ware.

Name	Purpose		Permissible load (BRN), kg	Bearable load from the weight of the lamps (with fivefold margin of safety according to GOST 26346-84 n.3.11), kg	Weight of the holder, kg	Code
	busbar type	quantity of the conductors in the busbar				
Busbar holder with latch quickly mountable	for double busbar	2P+2P	69,5	21	0,023	LTN70QFIU1AA000
		4P+4P				
		4P+2P				
		6P+6P				



## Universal bracket (single)



### Purpose:

- fixing of the busbar to supporting surfaces (walls and ceilings) or to the elements, there are special openings at 3 sides of the holder for this purpose;
- fixing of the holder for the cable duct to the busbar (code LTN70ZFUI4AA000);
- fixing of lamps and other equipment to the busbar.

### Characteristics:

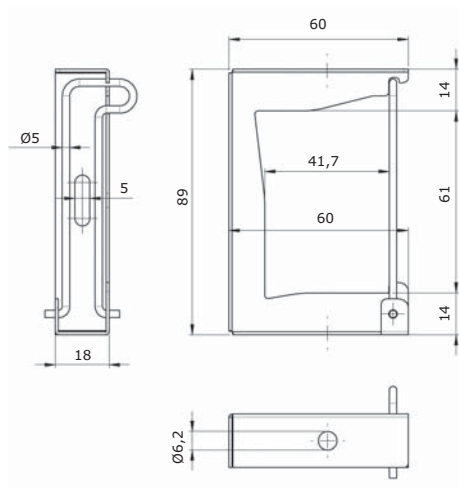
- the upper and lower openings – for the screw-threaded hook, the stud, the bolt or the screw of 6 mm in diameter;
- side oval opening for mounting with a diameter of 5 mm.

### Complete set:

- holder with a fixer (lock) without metal ware.

Name	Purpose		Weight of the holder, kg	Code
	busbar type	quantity of the conductors in the busbar		
Universal holder	for single busbar	2P	0,042	LTN70PFUI3AA000
		4P		
		6P		

## Universal bracket (double)



### Purpose:

- fixing of the busbar to supporting surfaces (walls and ceilings) or to the elements, there are special openings at 3 sides of the holder for this purpose;
- fixing of the holder for the cable duct to the busbar (code LTN70ZFUI4AA000);
- fixing of lamps and other equipment to the busbar.

### Characteristics:

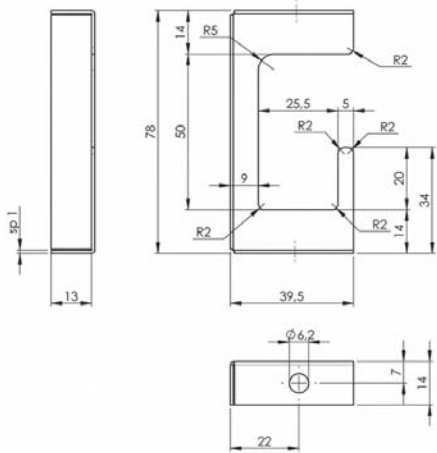
- the upper and lower openings for mounting the hook (code LTN70ZFUI6AA000) or the stud (code CM200602 or CM200601), bolt or screw of 6 mm in diameter;
- side oval opening for mounting with a diameter of 5 mm.

### Complete set:

- holder with a fixer (lock) without metal ware.

Name	Purpose		Weight of the holder, kg	Code
	busbar type	quantity of the conductors in the busbar		
Universal holder	for double busbar	2P+2P	0,051	LTN70QFUI3AA000
		4P+4P		
		4P+2P		
		6P+6P		

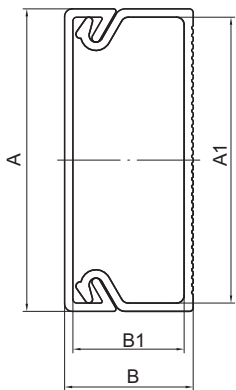
Universal bracket for cable duct



- Purpose:**
- fastening of the cable channel on the busbar for the control circuit laying.
- Characteristics:**
- the holder of the cable channel is mounted on or under the straight section of the busbar to the universal holder (code LTN70PFIU3AA000 or LTN70QFIU3AA);
  - mounting of the cable channel holder to a universal holder with DKC hardware:
    - screw M6x12 (code CM020612),
    - washer M6 (code CM120600),
    - nut M6 (code CM110600);
  - it is recommended to use together with the cable channel (mini channel with cover) with dimension type 25x17 mm (code 00304 or 00304R);
  - it is recommended to install the holders with interval of about 500 mm from each other to avoid the sagging of the cable channel with a big bending from the horizontal line.
- Complete set:**  
holder-clip (without hardware and cable channel).

Name	Purpose		Weight, kg	Code
	busbar type	quantity of the conductors in the busbar		
Cable channel holder	for single busbar	2P	0,04	LTN70ZFIU4AA000
		4P		
		6P		
	for double busbar	2P+2P		
		4P+4P		
		4P+2P		
		6P+6P		

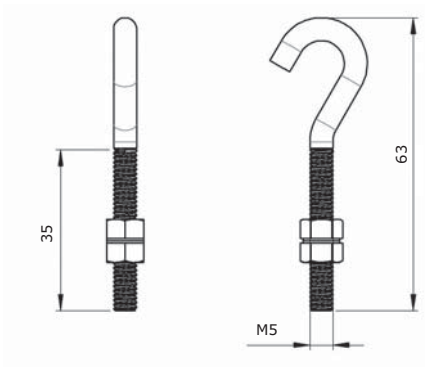
Cable duct



- Purpose:**
- control circuit laying.
- Mounting:**
- cable channel is laid into the holder (cover-up);
  - it is recommended to move the joint places of the lid and base of the cable channel towards each other.
- Characteristics:**
- color – white RAL 9016;
  - material – PVC composition;
  - available in 2-meter-long segments.

Name	Dimensions				The cross-sectional area EXT, mm <sup>2</sup>	Number of cables depending on their sectional area (capacity on VI wire 3 example), items				Weight, kg/м	Packaging	Code
	A	B	A1	B1		1,5 mm <sup>2</sup>	2,5 mm <sup>2</sup>	4 mm <sup>2</sup>	6 mm <sup>2</sup>			
TMC type minichannel of "In-liner Classic" series, dimension type 25/1x17 mm with standard removable cover	25	17	23	15	301	21	14	11	5	0,179	wholesale	00304
											retail	00304R

Open hook



- Purpose:**
- suspension of the busbar holder on the rope or chain;
  - suspension of the lamps or other equipment on the busbar with the help of the holders and hook.
- Characteristics:**
- M5 thread diameter;
  - the hook is inserted by its threaded end into the opening of the busbar holder (internal diameter is 6,2 mm);
  - inside diameter of the hook bend is 10 mm;
  - the hook is compatible with DKC chain (code CM610010);
  - the hook is compatible with DKC ropes, including the rope (code CM620050).
- Complete set:**
- 1 hook;
  - 2 nuts;
  - 1 lock washer.

Name	Purpose		Code
	busbar type	number of conductors in a busbar	
Open hook	for single busbar	2P	LTN70ZFIU6AA000
		4P	
		6P	
	for double busbar	2P+2P	
		4P+4P	
		4P+2P	
		6P+6P	

## Selection chart of the main accessories to the busbar

Type of busbar	Single busbar		Single busbar	
Number of conductors	2P		4P	
Rated current	25 A	40 A	25 A	40 A
Straight section (3000 mm long) with 3 tapping points	LTC25ASP43AA000	LTC40ASP43AA000	LTC25DSP43AA000	LTC40DSP43AA000
Straight section ( 3000 mm long) with 2 tapping points	LTC25ASP41AA300	LTC40ASP41AA300	LTC25DSP41AA000	LTC40DSP41AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25ASP42AA000	LTC40ASP42AA000	LTC25DSP42AA000	LTC40DSP42AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25ASP44AA000	LTC40ASP44AA000	LTC25DSP44AA000	LTC40DSP44AA000
Feeding element + end-plug, type 1	LTC25DFED3AA000	LTC40DFED3AA000	LTC25DFED3AA000	LTC40DFED3AA000
Feeding element + end-plug, type 2	LTC25DFED4AA000	LTC40DFED4AA000	LTC25DFED4AA000	LTC40DFED4AA000
Flexible bend (connector)	LTC25DFLXJAA000	LTC40DFLXJAA000	LTC25DFLXJAA000	LTC40DFLXJAA000
Angle block N/L1 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP01AA000	LTN70APP01AA000
Angle block N/L1 with cable 800 mm (FG07M1) 10 A	-	-	LTN70APP21AA000	LTN70APP21AA000
Angle block N/L1 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP11AA000	LTN70APP11AA000
Angle block N/L1 with cable 3000 mm (FG07M1) 10 A	-	-	LTN70APP31AA000	LTN70APP31AA000
Angle block N/L1+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L1+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L2 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP02AA000	LTN70APP02AA000
Angle block N/L2 with cable 800 mm (FG07M1) 10 A	-	-	LTN70APP22AA000	LTN70APP22AA000
Angle block N/L2 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP12AA000	LTN70APP12AA000
Angle block N/L2 with cable 3000 mm (FG07M1) 10 A	-	-	LTN70APP32AA000	LTN70APP32AA000
Angle block N/L2+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L2+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP03AA000	LTN70APP03AA000	LTN70APP03AA000	LTN70APP03AA000
Angle block N/L3 with cable 800 mm (FG07M1) 10 A	LTN70APP23AA000	LTN70APP23AA000	LTN70APP23AA000	LTN70APP23AA000
Angle block N/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP13AA000	LTN70APP13AA000	LTN70APP13AA000	LTN70APP13AA000
Angle block N/L3 with cable 3000 mm (FG07M1) 10 A	LTN70APP33AA000	LTN70APP33AA000	LTN70APP33AA000	LTN70APP33AA000
Angle block N/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP04AA000	LTN70APP04AA000
Angle block L2/L3 with cable 800 mm (FG07M1) 10 A	-	-	LTN70APP24AA000	LTN70APP24AA000
Angle block L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP14AA000	LTN70APP14AA000
Angle block L2/L3 with cable 3000 mm (FG07M1) 10 A	-	-	LTN70APP34AA000	LTN70APP34AA000
Angle block L2/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block L2/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L1/L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP09AA000	LTN70APP09AA000
Angle block N/L1/L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP19AA000	LTN70APP19AA000
Cable fixer	LTN70PFUI7AA000	LTN70PFUI7AA000	LTN70PFUI7AA000	LTN70PFUI7AA000
Busbar holder for suspension on the rope or chain	LTN70PFUI2AA000	LTN70PFUI2AA000	LTN70PFUI2AA000	LTN70PFUI2AA000
Rope 10 m with reinforced holders, galvanized steel (item)	CM620100	CM620100	CM620100	CM620100
Rope 5 m with reinforced holders, galvanized steel (item)	CM620050	CM620050	CM620050	CM620050
Long-link chain 30 m, galvanized steel (m)	CM610010	CM610010	CM610010	CM610010
Simple busbar holder	LTN70PFUI1AA000	LTN70PFUI1AA000	LTN70PFUI1AA000	LTN70PFUI1AA000
Open hook for the holder of the lighting busbar	LTN70ZFIU6AA000	LTN70ZFIU6AA000	LTN70ZFIU6AA000	LTN70ZFIU6AA000
Stud M6, 2 meter, galvanized steel (m)	CM200602	CM200602	CM200602	CM200602
Stud M6, 2 meter, stainless steel (m)	CM200602INOX	CM200602INOX	CM200602INOX	CM200602INOX
Knurled nut M6 preventing unscrewing, galvanized steel	CM100600	CM100600	CM100600	CM100600
Knurled nut M6 preventing unscrewing, stainless steel	CM100600INOX	CM100600INOX	CM100600INOX	CM100600INOX
Body washer M6 DIN9021, galvanized steel	CM120600	CM120600	CM120600	CM120600
Body washer M6 DIN9021, stainless steel	CM120600INOX	CM120600INOX	CM120600INOX	CM120600INOX
Cable clamp with lock nut IP68, PG21 (for insertion of the cable Ø 13-18 mm into feeder without pipe)	53000	53000	53000	53000
Flexible reinforced pipe, inner diameter 25 mm (for insertion of the cable in pipe into feeder)	57025	57025	57025	57025
Adapter flexible reinforced pipe-box (feeder), IP65, 1" (for insertion of the cable in pipe Ø 25 mm into feeder)	55125	55125	55125	55125
Gasket (to increase IP on adapter; if necessary)	PAPM25	PAPM25	PAPM25	PAPM25

## Selection chart of the main accessories to the busbar

Type of busbar	Single busbar	
Number of conductors	6P	
Rated current	25 A	40 A
Straight section (3000 mm long) with 3 tapping points	LTC25LSP43AA000	LTC40LSP43AA000
Straight section ( 3000 mm long) with 2 tapping points	LTC25LSP41AA000	LTC40LSP41AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25LSP42AA000	LTC40LSP42AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25LSP44AA000	LTC40LSP44AA000
Feeding element + end-plug, type 1	LTC25LFED3AA000	LTC40LFED3AA000
Feeding element + end-plug, type 2	LTC25LFED4AA000	LTC40LFED4AA000
Flexible bend (connector)	LTC25LFLXJAA000	LTC40LFLXJAA000
Angle block N/L1 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP01AA000	LTN70APP01AA000
Angle block N/L1 with cable 800 mm (FG07M1) 10 A	LTN70APP21AA000	LTN70APP21AA000
Angle block N/L1 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP11AA000	LTN70APP11AA000
Angle block N/L1 with cable 3000 mm (FG07M1) 10 A	LTN70APP31AA000	LTN70APP31AA000
Angle block N/L1+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP05AA000	LTN70APP05AA000
Angle block N/L1+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP15AA000	LTN70APP15AA000
Angle block N/L2 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP02AA000	LTN70APP02AA000
Angle block N/L2 with cable 800 mm (FG07M1) 10 A	LTN70APP22AA000	LTN70APP22AA000
Angle block N/L2 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP12AA000	LTN70APP12AA000
Angle block N/L2 with cable 3000 mm (FG07M1) 10 A	LTN70APP32AA000	LTN70APP32AA000
Angle block N/L2+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP06AA000	LTN70APP06AA000
Angle block N/L2+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP16AA000	LTN70APP16AA000
Angle block N/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP03AA000	LTN70APP03AA000
Angle block N/L3 with cable 800 mm (FG07M1) 10 A	LTN70APP23AA000	LTN70APP23AA000
Angle block N/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP13AA000	LTN70APP13AA000
Angle block N/L3 with cable 3000 mm (FG07M1) 10 A	LTN70APP33AA000	LTN70APP33AA000
Angle block N/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP07AA000	LTN70APP07AA000
Angle block N/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP17AA000	LTN70APP17AA000
Angle block L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP04AA000	LTN70APP04AA000
Angle block L2/L3 with cable 800 mm (FG07M1) 10 A	LTN70APP24AA000	LTN70APP24AA000
Angle block L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP14AA000	LTN70APP14AA000
Angle block L2/L3 with cable 3000 mm (FG07M1) 10 A	LTN70APP34AA000	LTN70APP34AA000
Angle block L2/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP08AA000	LTN70APP08AA000
Angle block L2/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP18AA000	LTN70APP18AA000
Angle block N/L1/L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP09AA000	LTN70APP09AA000
Angle block N/L1/L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP19AA000	LTN70APP19AA000
Cable fixer	LTN70PFIU7AA000	LTN70PFIU7AA000
Busbar holder for suspension on the rope or chain	LTN70PFIU2AA000	LTN70PFIU2AA000
Rope 10 m with reinforced holders, galvanized steel (item)	CM620100	CM620100
Rope 5 m with reinforced holders, galvanized steel (item)	CM620050	CM620050
Long-link chain 30 m, galvanized steel (m)	CM610010	CM610010
Simple busbar holder	LTN70PFIU1AA000	LTN70PFIU1AA000
Open hook for the holder of the lighting busbar	LTN70ZFIU6AA000	LTN70ZFIU6AA000
Stud M6, 2 meter, galvanized steel (m)	CM200602	CM200602
Stud M6, 2 meter, stainless steel (m)	CM200602INOX	CM200602INOX
Knurled nut M6 preventing unscrewing, galvanized steel	CM100600	CM100600
Knurled nut M6 preventing unscrewing, stainless steel	CM100600INOX	CM100600INOX
Body washer M6 DIN9021, galvanized steel	CM120600	CM120600
Body washer M6 DIN9021, stainless steel	CM120600INOX	CM120600INOX
Cable clamp with lock nut IP68, PG21 (for insertion of the cable Ø 13-18 mm into feeder without pipe)	53000	53000
Flexible reinforced pipe, inner diameter 25 mm (for insertion of the cable in pipe into feeder)	57025	57025
Adapter flexible reinforced pipe-box (feeder), IP65, 1" (for insertion of the cable in pipe Ø 25 mm into feeder)	55125	55125
Gasket (to increase IP on adapter; if necessary)	PAPM25	PAPM25

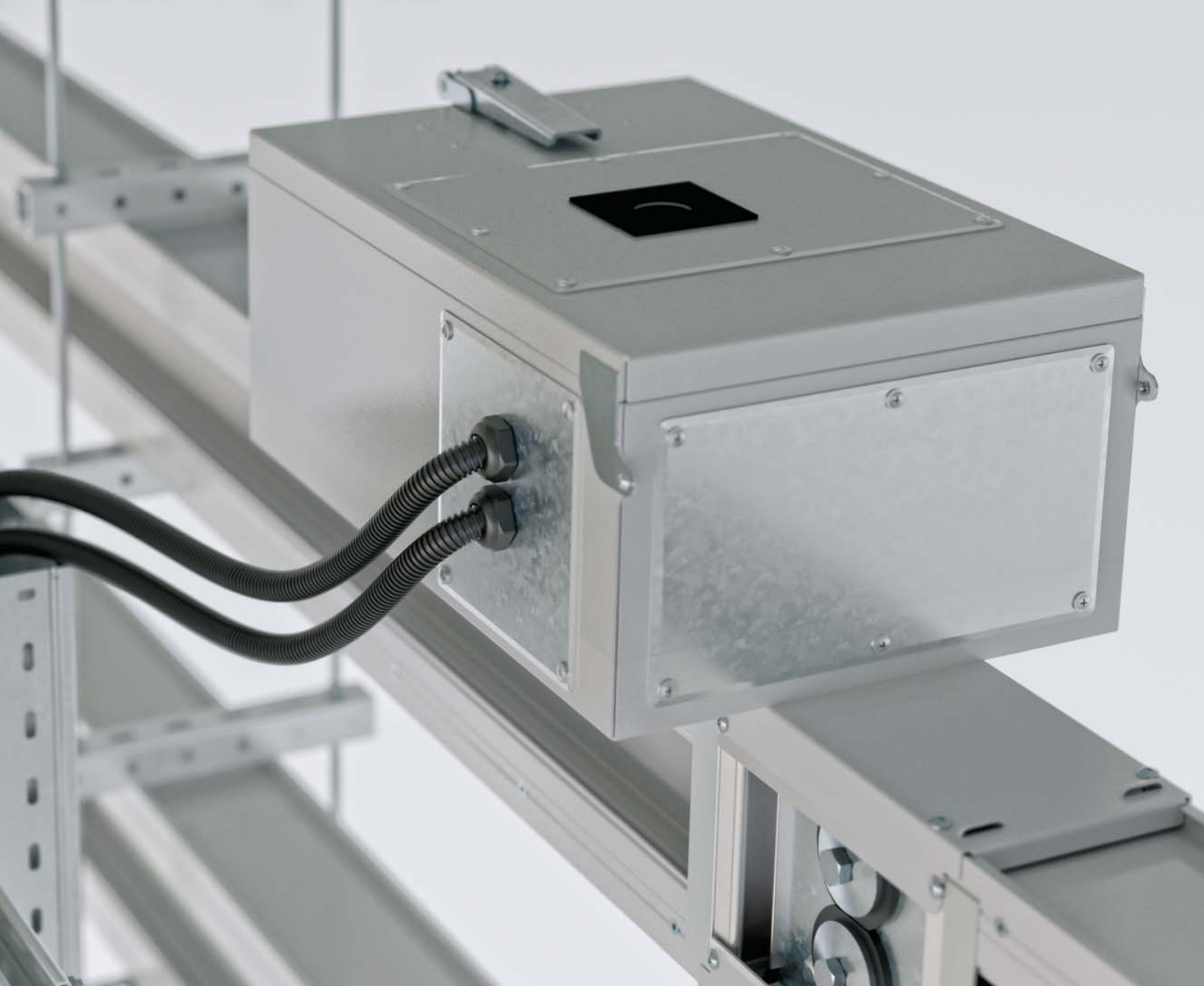
## Selection chart of the main accessories to the busbar

Type of busbar	Double busbar		Double busbar	
Number of conductors	2P+2P		4P+2P	
Rated current	25 A	40 A	25 A	40 A
Straight section (3000 mm long) with 3 tapping points	LTC25BSP43AA000	LTC40BSP43AA000	LTC25NSP43AA000	LTC40NSP43AA000
Straight section ( 3000 mm long) with 2 tapping points	LTC25BSP41AA000	LTC40BSP41AA000	LTC25NSP41AA000	LTC40NSP41AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25BSP42AA000	LTC40BSP42AA000	LTC25NSP42AA000	LTC40NSP42AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25BSP44AA000	LTC40BSP44AA000	LTC25NSP44AA000	LTC40NSP44AA000
Feeding element + end-plug, type 1	LTC25FFED3AA000	LTC40FFED3AA000	LTC40FFED3AA000	LTC40FFED3AA000
Feeding element + end-plug, type 2	LTC25FFED4AA000	LTC40FFED4AA000	LTC40FFED4AA000	LTC40FFED4AA000
Flexible bend (connector)	LTC25FFLXJAA000	LTC40FFLXJAA000	LTC40FFLXJAA000	LTC40FFLXJAA000
Angle block N/L1 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP01AA000	LTN70APP01AA000
Angle block N/L1 with cable 800 mm (FG07M1) 10 A	-	-	LTN70APP21AA000	LTN70APP21AA000
Angle block N/L1 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP11AA000	LTN70APP11AA000
Angle block N/L1 with cable 3000 mm (FG07M1) 10 A	-	-	LTN70APP31AA000	LTN70APP31AA000
Angle block N/L1+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L1+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L2 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP02AA000	LTN70APP02AA000
Angle block N/L2 with cable 800 mm (FG07M1) 10 A	-	-	LTN70APP22AA000	LTN70APP22AA000
Angle block N/L2 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP12AA000	LTN70APP12AA000
Angle block N/L2 with cable 3000 mm (FG07M1) 10 A	-	-	LTN70APP32AA000	LTN70APP32AA000
Angle block N/L2+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L2+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP03AA000	LTN70APP03AA000	LTN70APP03AA000	LTN70APP03AA000
Angle block N/L3 with cable 800 mm (FG07M1) 10 A	LTN70APP23AA000	LTN70APP23AA000	LTN70APP23AA000	LTN70APP23AA000
Angle block N/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP13AA000	LTN70APP13AA000	LTN70APP13AA000	LTN70APP13AA000
Angle block N/L3 with cable 3000 mm (FG07M1) 10 A	LTN70APP33AA000	LTN70APP33AA000	LTN70APP33AA000	LTN70APP33AA000
Angle block N/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP04AA000	LTN70APP04AA000
Angle block L2/L3 with cable 800 mm (FG07M1) 10 A	-	-	LTN70APP24AA000	LTN70APP24AA000
Angle block L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP14AA000	LTN70APP14AA000
Angle block L2/L3 with cable 3000 mm (FG07M1) 10 A	-	-	LTN70APP34AA000	LTN70APP34AA000
Angle block L2/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block L2/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	-	-
Angle block N/L1/L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	-	-	LTN70APP09AA000	LTN70APP09AA000
Angle block N/L1/L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	-	-	LTN70APP19AA000	LTN70APP19AA000
Cable fixer	LTN70QFIU7AA000	LTN70QFIU7AA000	LTN70QFIU7AA000	LTN70QFIU7AA000
Busbar holder for suspension on the rope or chain	LTN70QFIU2AA000	LTN70QFIU2AA000	LTN70QFIU2AA000	LTN70QFIU2AA000
Rope 10 m with reinforced holders, galvanized steel (item)	CM620100	CM620100	CM620100	CM620100
Rope 5 m with reinforced holders, galvanized steel (item)	CM620050	CM620050	CM620050	CM620050
Long-link chain 30 m, galvanized steel (m)	CM610010	CM610010	CM610010	CM610010
Simple busbar holder	LTN70QFIU1AA000	LTN70QFIU1AA000	LTN70QFIU1AA000	LTN70QFIU1AA000
Open hook for the holder of the lighting busbar	LTN70ZFIU6AA000	LTN70ZFIU6AA000	LTN70ZFIU6AA000	LTN70ZFIU6AA000
Stud M6, 2 meter, galvanized steel (m)	CM200602	CM200602	CM200602	CM200602
Stud M6, 2 meter, stainless steel (m)	CM200602INOX	CM200602INOX	CM200602INOX	CM200602INOX
Knurled nut M6 preventing unscrewing, galvanized steel	CM100600	CM100600	CM100600	CM100600
Knurled nut M6 preventing unscrewing, stainless steel	CM100600INOX	CM100600INOX	CM100600INOX	CM100600INOX
Body washer M6 DIN9021, galvanized steel	CM120600	CM120600	CM120600	CM120600
Body washer M6 DIN9021, stainless steel	CM120600INOX	CM120600INOX	CM120600INOX	CM120600INOX
Cable clamp with lock nut IP68, PG21 (for insertion of the cable Ø 13-18 mm into feeder without pipe)	53000	53000	53000	53000
Flexible reinforced pipe, inner diameter 25 mm (for insertion of the cable in pipe into feeder)	57025	57025	57025	57025
Adapter flexible reinforced pipe-box (feeder), IP65, 1" (for insertion of the cable in pipe Ø 25 mm into feeder)	55125	55125	55125	55125
Gasket (to increase IP on adapter; if necessary)	PAPM25	PAPM25	PAPM25	PAPM25

## Selection chart of the main accessories to the busbar

Type of busbar	Double busbar		Double busbar	
Number of conductors	4P+4P		6P+6P	
Rated current	25 A	40 A	25 A	40 A
Straight section (3000 mm long) with 3 tapping points	LTC25FSP43AA000	LTC40FSP43AA000	LTC25MSP43AA000	LTC40MSP43AA000
Straight section ( 3000 mm long) with 2 tapping points	LTC25FSP41AA000	LTC40FSP41AA000	LTC25MSP41AA000	LTC40MSP41AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25FSP42AA000	LTC40FSP42AA000	LTC25MSP42AA000	LTC40MSP42AA000
Straight section ( 3000 mm long) with 1 tapping point	LTC25FSP44AA000	LTC40FSP44AA000	LTC25MSP44AA000	LTC40MSP44AA000
Feeding element + end-plug, type 1	LTC40FFED3AA000	LTC40FFED3AA000	LTC25MFED3AA000	LTC40MFED3AA000
Feeding element + end-plug, type 2	LTC40FFED4AA000	LTC40FFED4AA000	LTC25MFED4AA000	LTC40MFED4AA000
Flexible bend (connector)	LTC40FFLXJAA000	LTC40FFLXJAA000	LTC25MFLXJAA000	LTC40MFLXJAA000
Angle block N/L1 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP01AA000	LTN70APP01AA000	LTN70APP01AA000	LTN70APP01AA000
Angle block N/L1 with cable 800 mm (FG07M1) 10 A	LTN70APP21AA000	LTN70APP21AA000	LTN70APP21AA000	LTN70APP21AA000
Angle block N/L1 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP11AA000	LTN70APP11AA000	LTN70APP11AA000	LTN70APP11AA000
Angle block N/L1 with cable 3000 mm (FG07M1) 10 A	LTN70APP31AA000	LTN70APP31AA000	LTN70APP31AA000	LTN70APP31AA000
Angle block N/L1+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	–	–	LTN70APP05AA000	LTN70APP05AA000
Angle block N/L1+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	–	–	LTN70APP15AA000	LTN70APP15AA000
Angle block N/L2 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP02AA000	LTN70APP02AA000	LTN70APP02AA000	LTN70APP02AA000
Angle block N/L2 with cable 800 mm (FG07M1) 10 A	LTN70APP22AA000	LTN70APP22AA000	LTN70APP22AA000	LTN70APP22AA000
Angle block N/L2 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP12AA000	LTN70APP12AA000	LTN70APP12AA000	LTN70APP12AA000
Angle block N/L2 with cable 3000 mm (FG07M1) 10 A	LTN70APP32AA000	LTN70APP32AA000	LTN70APP32AA000	LTN70APP32AA000
Angle block N/L2+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	–	–	LTN70APP06AA000	LTN70APP06AA000
Angle block N/L2+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	–	–	LTN70APP16AA000	LTN70APP16AA000
Angle block N/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP03AA000	LTN70APP03AA000	LTN70APP03AA000	LTN70APP03AA000
Angle block N/L3 with cable 800 mm (FG07M1) 10 A	LTN70APP23AA000	LTN70APP23AA000	LTN70APP23AA000	LTN70APP23AA000
Angle block N/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP13AA000	LTN70APP13AA000	LTN70APP13AA000	LTN70APP13AA000
Angle block N/L3 with cable 3000 mm (FG07M1) 10 A	LTN70APP33AA000	LTN70APP33AA000	LTN70APP33AA000	LTN70APP33AA000
Angle block N/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	–	–	LTN70APP07AA000	LTN70APP07AA000
Angle block N/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	–	–	LTN70APP17AA000	LTN70APP17AA000
Angle block L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP04AA000	LTN70APP04AA000	LTN70APP04AA000	LTN70APP04AA000
Angle block L2/L3 with cable 800 mm (FG07M1) 10 A	LTN70APP24AA000	LTN70APP24AA000	LTN70APP24AA000	LTN70APP24AA000
Angle block L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP14AA000	LTN70APP14AA000	LTN70APP14AA000	LTN70APP14AA000
Angle block L2/L3 with cable 3000 mm (FG07M1) 10 A	LTN70APP34AA000	LTN70APP34AA000	LTN70APP34AA000	LTN70APP34AA000
Angle block L2/L3+L4/L5 with cable 800 mm (H05Z1Z1F) 10 A	–	–	LTN70APP08AA000	LTN70APP08AA000
Angle block L2/L3+L4/L5 with cable 3000 mm (H05Z1Z1F) 10 A	–	–	LTN70APP18AA000	LTN70APP18AA000
Angle block N/L1/L2/L3 with cable 800 mm (H05Z1Z1F) 10 A	LTN70APP09AA000	LTN70APP09AA000	LTN70APP09AA000	LTN70APP09AA000
Angle block N/L1/L2/L3 with cable 3000 mm (H05Z1Z1F) 10 A	LTN70APP19AA000	LTN70APP19AA000	LTN70APP19AA000	LTN70APP19AA000
Cable fixer	LTN70QFIU7AA000	LTN70QFIU7AA000	LTN70QFIU7AA000	LTN70QFIU7AA000
Busbar holder for suspension on the rope or chain	LTN70QFIU2AA000	LTN70QFIU2AA000	LTN70QFIU2AA000	LTN70QFIU2AA000
Rope 10 m with reinforced holders, galvanized steel (item)	CM620100	CM620100	CM620100	CM620100
Rope 5 m with reinforced holders, galvanized steel (item)	CM620050	CM620050	CM620050	CM620050
Long-link chain 30 m, galvanized steel (m)	CM610010	CM610010	CM610010	CM610010
Simple busbar holder	LTN70QFIU1AA000	LTN70QFIU1AA000	LTN70QFIU1AA000	LTN70QFIU1AA000
Open hook for the holder of the lighting busbar	LTN70ZFIU6AA000	LTN70ZFIU6AA000	LTN70ZFIU6AA000	LTN70ZFIU6AA000
Stud M6, 2 meter, galvanized steel (m)	CM200602	CM200602	CM200602	CM200602
Stud M6, 2 meter, stainless steel (m)	CM200602INOX	CM200602INOX	CM200602INOX	CM200602INOX
Knurled nut M6 preventing unscrewing, galvanized steel	CM100600	CM100600	CM100600	CM100600
Knurled nut M6 preventing unscrewing, stainless steel	CM100600INOX	CM100600INOX	CM100600INOX	CM100600INOX
Body washer M6 DIN9021, galvanized steel	CM120600	CM120600	CM120600	CM120600
Body washer M6 DIN9021, stainless steel	CM120600INOX	CM120600INOX	CM120600INOX	CM120600INOX
Cable clamp with lock nut IP68, PG21 (for insertion of the cable Ø 13-18 mm into feeder without pipe)	53000	53000	53000	53000
Flexible reinforced pipe, inner diameter 25 mm (for insertion of the cable in pipe into feeder)	57025	57025	57025	57025
Adapter flexible reinforced pipe-box (feeder), IP65, 1" (for insertion of the cable in pipe Ø 25 mm into feeder)	55125	55125	55125	55125
Gasket (to increase IP on adapter; if necessary)	PAPM25	PAPM25	PAPM25	PAPM25





# **HERCULES**

## **Power and distribution busbar "Hercules"**

<b>System description .....</b>	<b>346</b>
<b>Busbar with aluminum conductors .....</b>	<b>355</b>
<b>Busbar with copper conductors .....</b>	<b>382</b>
<b>Tap-off units .....</b>	<b>409</b>



## Power and distribution busbar "Hercules"

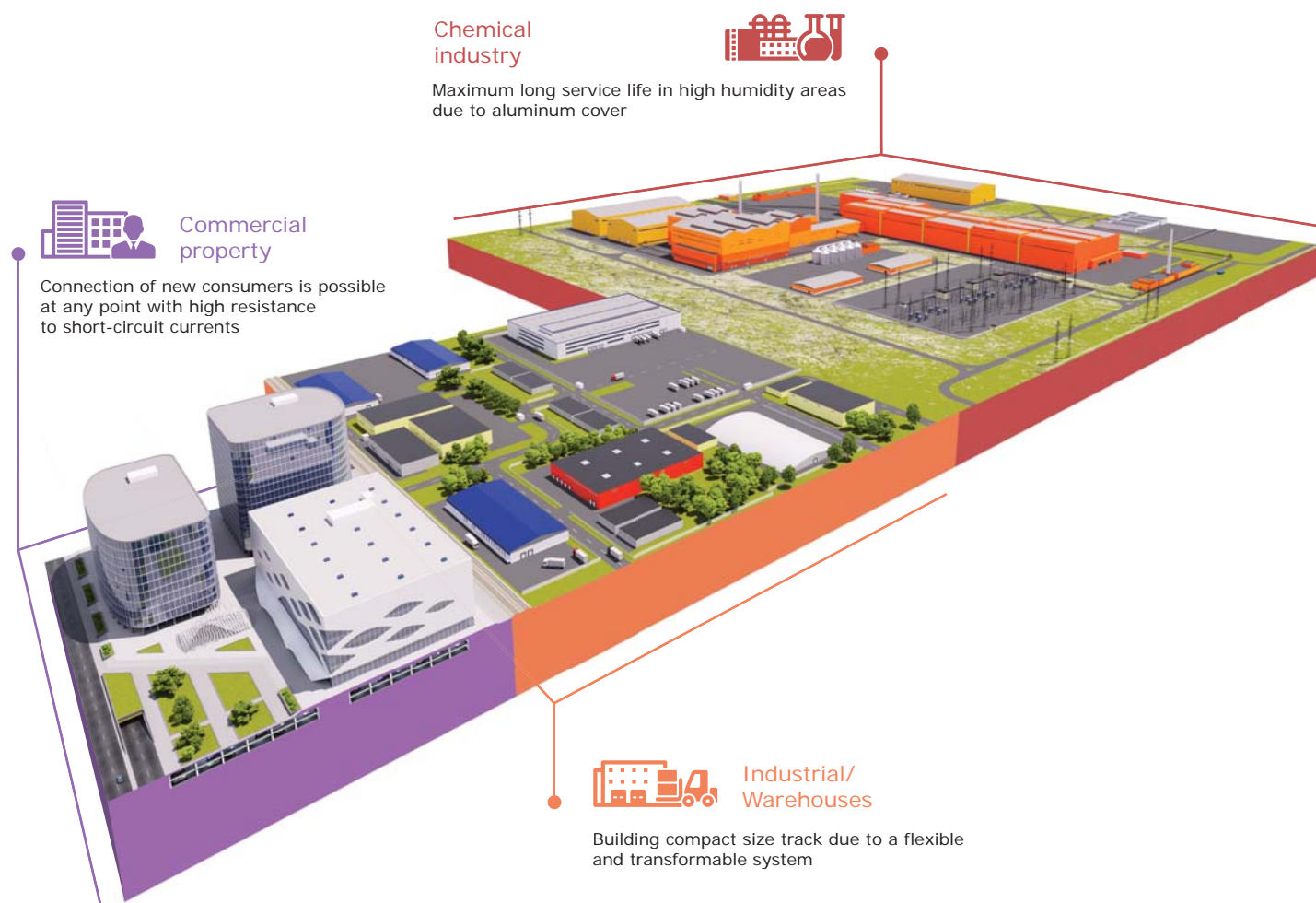
### System description

"Hercules" power and distribution busbar is applied as supply circuits in the high-power systems with the rated current from 630 to 6400 A with the possible connection of the consumers along the whole length of the line. Structurally the busbar represents a system of insulated conductors assembled in aluminum body.

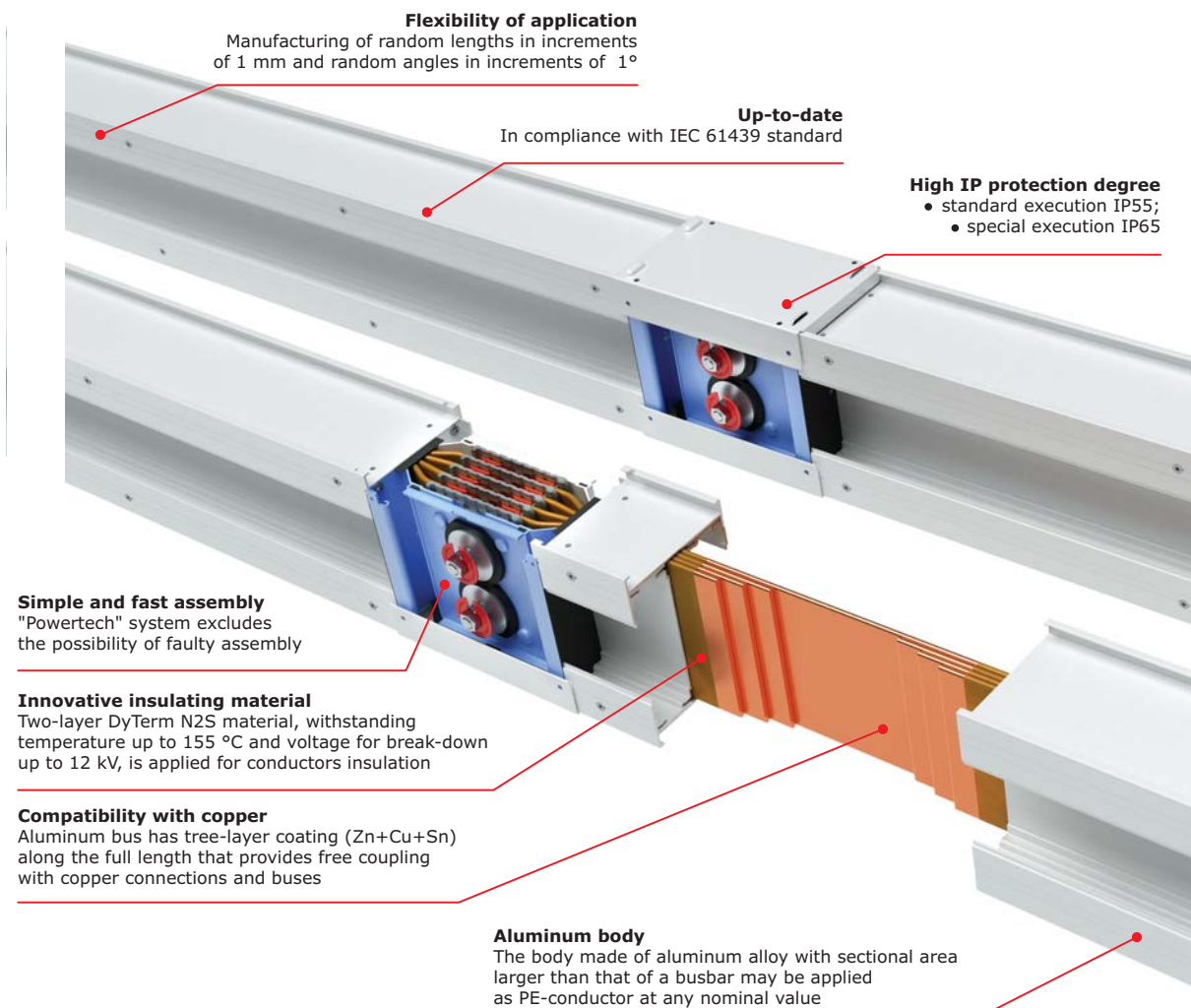
### Area of application

Power and distribution busbar is used in construction for providing an electrical connection of electrical equipment (electromagnets, transformers, generators and so on. d.) in AC circuits with voltage up to 1 kV and rated currents up to 6300 A.

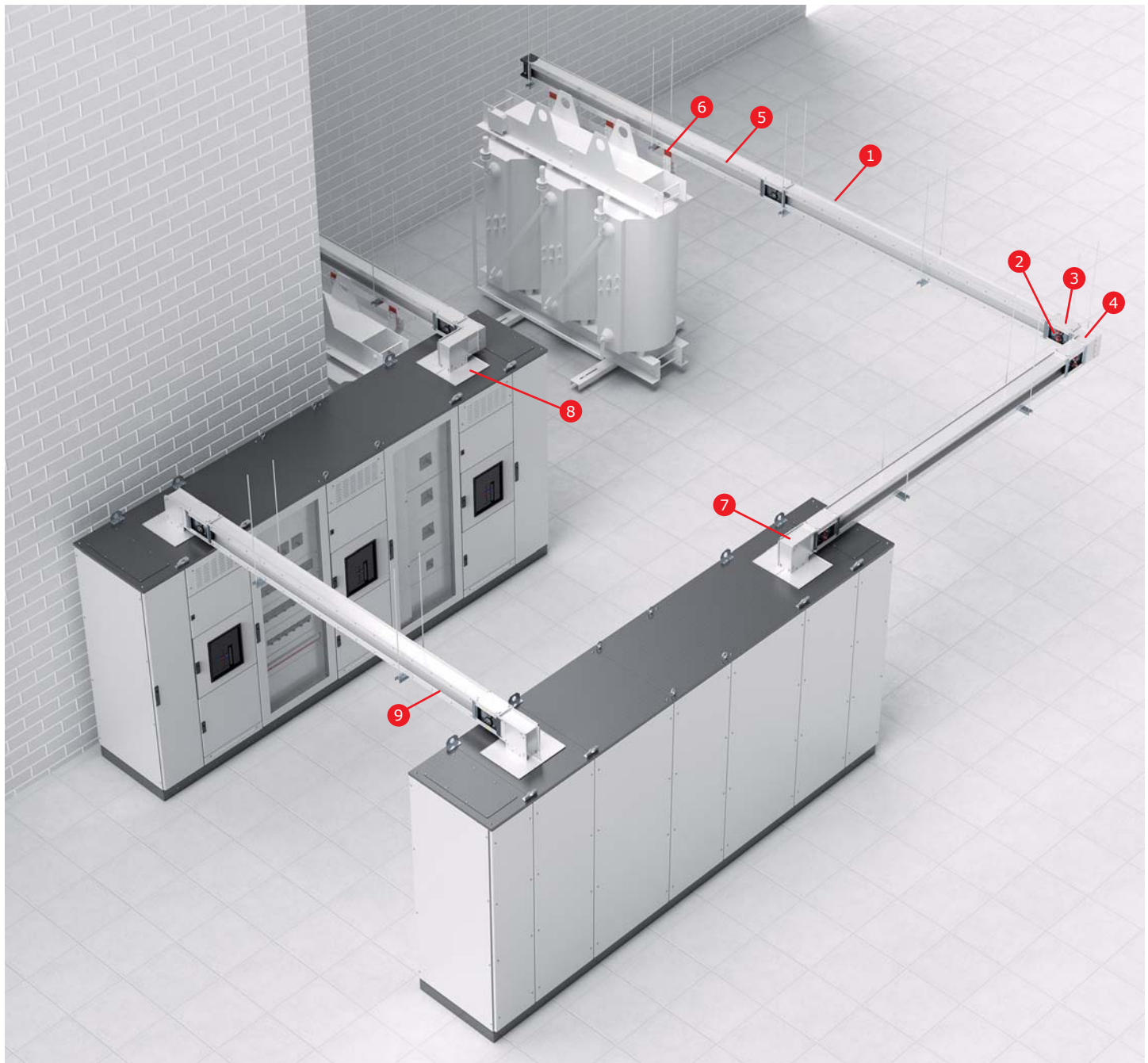
The "Hercules" includes a complete set of the necessary elements for the assembly of tracks of any complexity, with the possibility of a patented manufacture of straight sections directly on facility, according to the instructions of the DKC. Power and distribution busbar "Hercules" made in our own factory of DKC in Italy, which closely monitors the quality of produced goods with compliance all required standards. Each item takes a full range of testing after manufacture.



### Advantages

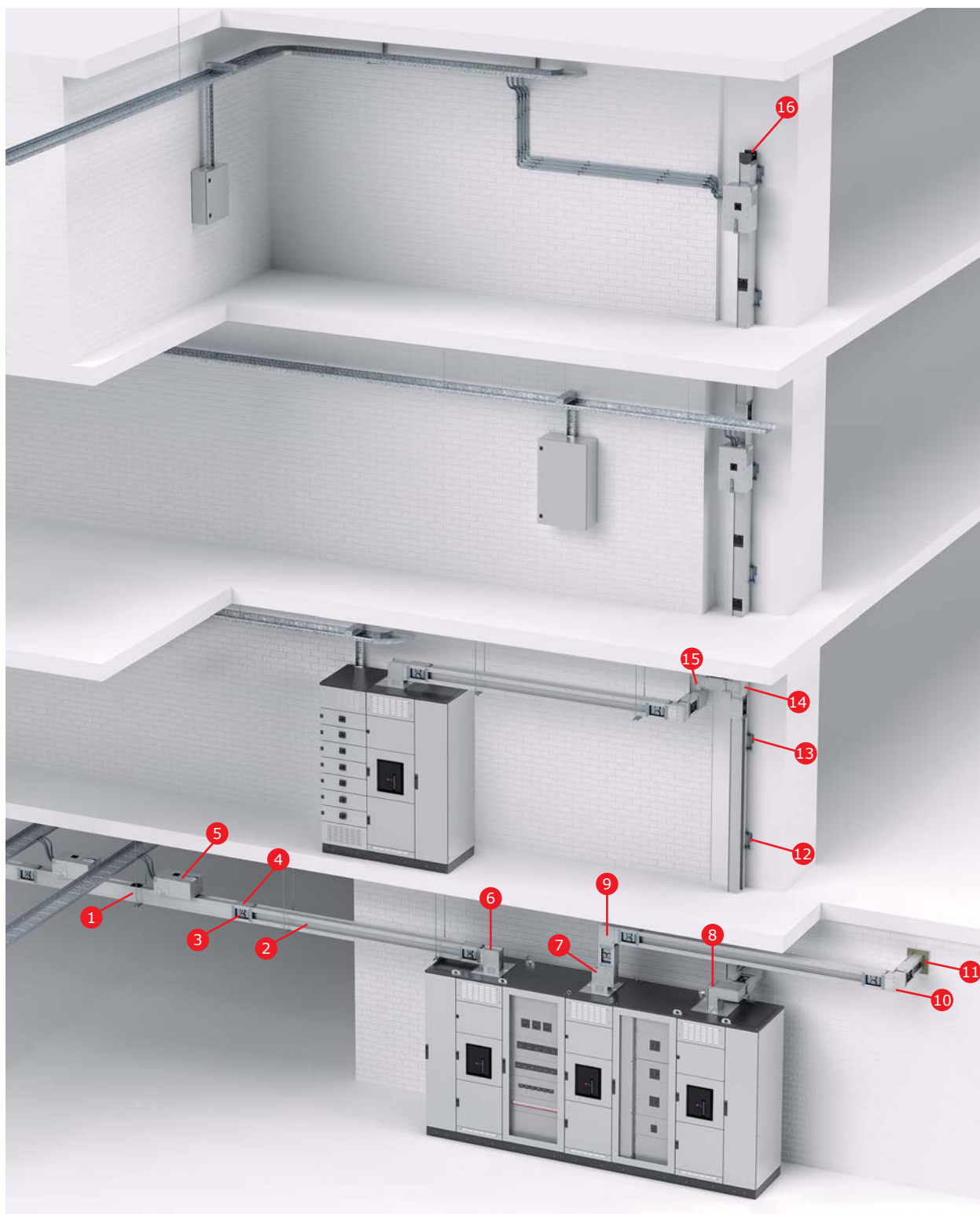


## System components



- 1 Straight busbar section
- 2 Connecting section
- 3 Covers of the connection
- 4 Horizontal angle
- 5 Connecting section to a dry transformer
- 6 Flexible buses
- 7 Connection section to transformer/board with vertical angle
- 8 Connection section to transformer/board with vertical and horizontal angle
- 9 Phase transposition section

### System components



- |   |   |    |  |
|---|---|----|--|
| 1 | Straight busbar section with tapping points                                 | 9  | Vertical angle                               |
| 2 | Straight busbar section without tapping points                              | 10 | Horizontal angle                             |
| 3 | Connecting section  | 11 | Fire-resistant passage                       |
| 4 | Covers of the connection  | 12 | Busbar fixer for vertical lines              |
| 5 | Tap-off box   | 13 | Busbar fixer for vertical lines with springs |
| 6 | Connection section to transformer/board with vertical angle                 | 14 | T-joint                                      |
| 7 | Connection section to transformer/board with double vertical angle          | 15 | Horizontal and vertical angles               |
| 8 | Connection section to transformer/board with vertical and horizontal angles | 16 | End-cap                                      |



## Technical characteristics of busbars with copper conductors

Characteristics			Values											
Rated current (40 °C) I <sub>n</sub> , A			800	1000	1250	1600	2000	2500	3200	4000	5000	6400		
Rated operation voltage U <sub>e</sub> , V			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Rated insulation voltage U <sub>i</sub> , V			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Rated frequency, Hz			50	50	50	50	50	50	50	50	50	50		
Rated current K.3. three-phase (within 1 s) I <sub>cwr</sub> , kA			50	50	61	80	90	98	100	120	120	120		
Peak-point current K.3. three-phase I <sub>pk</sub> , kA			110	110	134	185	204	256	220	264	264	264		
Conductors														
Active resistance of a phase bus at 20 °C R <sub>20</sub> , mOhm/m			0,044	0,044	0,035	0,028	0,023	0,016	0,011	0,009	0,008	0,006		
Reactance of a phase bus at 50 Hz, X, mOhm/m			0,020	0,020	0,017	0,015	0,010	0,006	0,005	0,005	0,004	0,003		
Impedance of a phase bus Z, mOhm/m			0,049	0,049	0,043	0,032	0,022	0,016	0,012	0,011	0,010	0,008		
Active resistance of a phase bus at a maximum working temperature R <sub>t</sub> , mOhm/m			0,053	0,053	0,044	0,030	0,028	0,021	0,017	0,012	0,010	0,009		
Phase bus section S, mm <sup>2</sup>			345	345	460	575	920	1150	1380	1840	2300	2760		
Conductor material			electrolytic copper ETP 99.9											
Protective conductor (body, case)														
Conductor material (body, case)			painted aluminum alloy AL 6060											
Conductor section S, mm <sup>2</sup>			2034	2034	2172	2260	2515	2772	3192	4809	5121	5961		
Conductor section equivalent to copper S <sub>cu</sub> , mm <sup>2</sup>			1220	1220	1303	1356	1329	1663	1915	2885	3073	3577		
Other characteristics														
Emergency circuit resistance R <sub>0</sub> , mOhm/m			0,031	0,031	0,042	0,028	0,029	0,027	0,018	0,014	0,010	0,009		
Emergency circuit reactance X <sub>0</sub> , mOhm/m			0,070	0,070	0,110	0,109	0,107	0,080	0,055	0,060	0,041	0,035		
Emergency circuit impedance Z <sub>0</sub> , mOhm/m			0,077	0,077	0,114	0,113	0,086	0,056	0,062	0,042	0,033	0,032		
Factor (ration) of the voltage loss k, (W/m/A)·10 <sup>-6</sup> ΔV = k · L · I <sub>e</sub> · 10 <sup>-6</sup>  With distributed load ΔU = k · L · I <sub>e</sub> · 10 <sup>-6</sup> , W With full load on other end ΔU = 2 · k · L · I <sub>e</sub> · 10 <sup>-6</sup> , W	cosφ = 0,70		44,45	45,68	37,14	27,43	23,13	49,78	41,18	38,15	30,76	23,98		
	cosφ = 0,75		45,83	46,97	38,27	28,04	23,89	47,95	39,64	36,39	29,37	23,00		
	cosφ = 0,80		47,06	48,09	39,27	28,55	24,57	45,67	37,71	34,25	27,68	21,80		
	cosφ = 0,85		48,08	48,99	40,10	28,89	25,14	42,78	35,28	31,61	25,58	20,29		
	cosφ = 0,90		48,80	49,56	40,66	29,01	25,57	38,97	32,09	28,19	22,87	18,32		
	cosφ = 0,95		48,95	49,49	40,75	28,70	25,71	33,46	27,47	23,37	19,02	15,50		
	cosφ = 1,00		45,85	45,85	38,06	25,95	24,22	18,17	14,71	10,38	8,65	7,79		
Linear weight P, kg/m		3P+N+PE	18,5	18,5	23,5	28,0	41,0	51,5	61,5	81,5	101,5	121,5		
		3P+N+PE+FE	23,1	23,1	29,4	35,0	51,5	64,6	76,9	101,9	126,9	151,9		
Case overall dimensions, mm			3P+N+PE	width	133,0	133,0	133,0	133,0	133,0	133,0	133,0	133,0	133,0	
				height	97,0	97,0	117,0	137,0	197,0	237,0	277,0	362,5	442,5	522,5
			3P+N+PE+FE	width	139,0	139,0	139,0	139,0	139,0	139,0	139,0	139,0	139,0	139,0
				height	97,0	97,0	117,0	137,0	197,0	237,0	277,0	362,5	442,5	522,5
Standard body color			grey RAL 7035											
Heat-resistance class of the insulation (limiting temperature at continuous duty)			F (155°C)*											
Protection class			IP55**											
Compliance to standards			TP TS 004/2011, FL № 123-FL, GOST IEC 61439-1-2013, GOST IEC 61439-6-2013											
Lifetime			25 years											

\* Busbar with H class insulation (180 °C) is available for order

\*\* Busbar with protection grade IP65 is available for order

## Technical characteristics of busbars with aluminum conductors

Characteristics			Values									
Rated current (40 °C) I <sub>n</sub> , A			630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated operation voltage U <sub>e</sub> , V			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage U <sub>i</sub> , V			1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated frequency, Hz			50	50	50	50	50	50	50	50	50	50
Rated current K.3. three-phase (within 1 s) I <sub>cw</sub> , kA			35	35	53	56	80	90	100	120	120	120
Peak-point current K.3. three-phase I <sub>pk</sub> , kA			77	77	116,6	123,2	176	198	220	264	264	264
Conductors												
Active resistance of a phase bus at 20 °C R <sub>20</sub> , mOhm/m			0,093	0,076	0,062	0,046	0,035	0,028	0,021	0,017	0,014	0,011
Reactance of a phase bus at 50 Hz, X, mOhm/m			0,048	0,023	0,018	0,016	0,012	0,010	0,008	0,007	0,006	0,004
Impedance of a phase bus Z, mOhm/m			0,113	0,084	0,071	0,046	0,040	0,031	0,025	0,020	0,014	0,012
Active resistance of a phase bus at a maximum working temperature R <sub>t</sub> , mOhm/m			0,103	0,089	0,073	0,055	0,041	0,033	0,025	0,020	0,017	0,012
Phase bus section S, mm <sup>2</sup>			345	345	460	575	920	1150	1380	1840	2300	2760
Conductor material			aluminum alloy AL 6060, tinned along the whole length									
Protective conductor (body, case)												
Conductor material (body, case)			painted aluminum alloy AL 6060									
Conductor section S, mm <sup>2</sup>			2034	2034	2172	2260	2515	2772	3192	4809	5121	5961
Conductor section equivalent to copper S <sub>cu</sub> , mm <sup>2</sup>			1220	1220	1303	1356	1329	1663	1915	2885	3073	3577
Other characteristics												
Emergency circuit resistance R <sub>0</sub> , mOhm/m			0,136	0,143	0,118	0,096	0,079	0,069	0,058	0,047	0,042	0,034
Emergency circuit reactance X <sub>0</sub> , mOhm/m			0,112	0,102	0,094	0,071	0,060	0,050	0,033	0,027	0,027	0,014
Emergency circuit impedance Z <sub>0</sub> , mOhm/m			0,271	0,237	0,220	0,192	0,154	0,138	0,104	0,083	0,076	0,064
Index of voltage drop at distributed load K, (B/m/A)·10 <sup>-6</sup> ΔV = k · L · I <sub>e</sub> · 10 <sup>-6</sup> , K	cosφ = 0,70		92,02	67,89	55,56	42,75	32,33	26,33	20,01	16,48	14,45	9,95
	cosφ = 0,75		94,28	70,71	57,92	44,40	33,59	27,32	20,73	17,06	14,92	10,27
	cosφ = 0,80		96,19	73,37	60,13	45,93	34,76	28,23	21,39	17,58	15,35	10,56
	cosφ = 0,85		97,60	75,80	62,16	47,31	35,80	29,05	21,97	18,04	15,70	10,81
	cosφ = 0,90		98,28	77,88	63,92	48,44	36,67	29,71	22,43	18,40	15,97	10,98
	cosφ = 0,95		97,60	79,32	65,17	49,14	37,21	30,09	22,67	18,57	16,05	11,04
	cosφ = 1,00		89,10	77,09	63,47	47,28	35,83	28,86	21,63	17,65	15,12	10,38
Linear weight P, kg/m	3P+N+PE		10,0	10,0	12,0	13,5	19,0	22,5	26,5	36,5	44,0	52,0
	3P+N+PE+FE		12,5	12,5	15,0	16,9	23,8	28,1	33,1	45,6	55,0	65,0
Case overall dimensions, mm	3P+N+PE	width	133,0	133,0	133,0	133,0	133,0	133,0	133,0	133,0	133,0	133,0
		height	97,0	97,0	117,0	137,0	197,0	237,0	277,0	362,5	442,5	522,5
	3P+N+PE+FE	width	139,0	139,0	139,0	139,0	139,0	139,0	139,0	139,0	139,0	139,0
		height	97,0	97,0	117,0	137,0	197,0	237,0	277,0	362,5	442,5	522,5
Standard body color			grey RAL 7035									
Heat-resistance class of the insulation (limiting temperature at continuous duty)			F (155°C)*									
Protection class			IP55**									
Compliance to standards			TP TS 004/2011, FL № 123-Φ3, GOST IEC 61439-1-2013, GOST IEC 61439-6-2013									
Lifetime			25 years									

\* Busbar with H class insulation (180 °C) is available for order

\*\* Busbar with protection grade IP65 is available for order

## Coding system

**XX X XX X XXXX XX XXX**

### Execution index:

**Combined designation** of the unique characteristics of products (for example, nonstandard length of the straight section)

**Designation of the execution of the standard characteristics of a product**

**Combined designation of the product design** (see appendix 1)

**Designation of the poles configuration** (see appendix 2)

**Designation of the rated current of the product or of the bus height** (see appendix 3)

### Material of the current-carrying part

**A** – aluminium;

**C** – copper;

**N** – accessory is compatible with both materials.

### Busbar type

**PT** – power and distribution;

**LT** – lighting.

## Examples of using

**PTA25EHEL1AA000**

**000** – standard version;

**AA** – standard version;

**HEL1** – horizontal angle, type 1;

**E** – 3P+N+Pe;

**25** – a nominal value of 2500 A;

**A** – with aluminum buses;

**PT** – power and distribution busbar.

## Appendix 1. Combined designation of the product design

SEF1	straight element of a standard length 3000 mm
SEF2	straight element of a random length 500–2999 mm
SP11	straight element with 3 tapping points 2950 mm
SP12	straight element with 3 tapping points, random dimensions
SP13	straight element with 2 tapping points, random dimensions
SP14	straight element with 1 tapping point, random dimensions
SP15	straight element with 4 tapping points, random dimensions
SP16	straight element with 2 tapping points 2400 mm
SP21	straight element with 3+3 tapping points 2950 mm
SP22	straight element with 3+3 tapping points, random dimensions
SP23	straight element with 2+2 tapping points, random dimensions
SP24	straight element with 1+1 tapping points, random dimensions
SP25	straight element with 4+4 tapping points, random dimensions
HEL1	horizontal angle, type 1
HEL2	horizontal angle, type 2
HEL3	horizontal angle, type 1, random dimensions
HEL4	horizontal angle, type 2, random dimensions
VEL1	vertical angle
VEL1	vertical angle, random dimensions
DHE1	horizontal Z-shaped section, type 1
DHE1	horizontal Z-shaped section, type 2
DVE1	vertical Z-shaped section, type 1
DVE2	vertical Z-shaped section, type 2
HVE1	horizontal+vertical angle, type 1
HVE2	horizontal +vertical angle, type 2
HVE3	horizontal+vertical angle, type 3

## Appendix 1

HVE4	horizontal +vertical angle, type 4
HTE1	horizontal T-joint, type 1
HTE2	horizontal T-joint, type 2
HTE5	horizontal T-joint, type 1, random dimensions
HTE6	horizontal T-joint, type 2, random dimensions
VTE1	vertical T-joint
VTE5	vertical T-joint, random dimensions
TST1	Connection section to transformer/board
TST2	Connection section to transformer/board , random dimensions
HET1	TST c horizontal angle , type 1
HET2	TST c horizontal angle , type 2
HET3	TST c horizontal angle , type 1, random dimensions
HET4	TST c horizontal angle , type 2, random dimensions
VET1	TST with vertical angle, type 1
VET2	TST with vertical angle, type 2
VET3	TST with vertical angle, type 1, random dimensions
VET4	TST with vertical angle, type 2, random dimensions
DHT1	TST with double horizontal angle , type 1
DHT2	TST with double horizontal angle , type 2
DVT1	TST with double vertical angle, type 1
DVT2	TST with double vertical angle, type 2
HVT1	TST with vertical and horizontal angle , type 1
HVT2	TST with vertical and horizontal angle , type 2
HVT3	TST with vertical and horizontal angle , type 3
HVT4	TST with vertical and horizontal angle , type 4
VHT1	TST with horizontal and vertical angle, type 1
VHT2	TST with horizontal and vertical angle, type 2
VHT3	TST with horizontal and vertical angle, type 3
VHT4	TST with horizontal and vertical angle, type 4
TPP1	connecting section to a dry transformer, type 1
TPP2	connecting section to a dry transformer, type 2
HTP1	TPP with horizontal angle , type 1
HTP2	TPP with horizontal angle , type 2
HTP3	TPP with horizontal angle , type 3
HTP4	TPP with horizontal angle , type 4
VTP1	TPP with vertical angle, type 1
VTP2	TPP with vertical angle, type 2
VTP3	TPP with vertical angle, type 3
VTP4	TPP with vertical angle, type 4
FLXJA	set of flexible buses
FED1	cable section
FED2	cable section, random dimensions
FVR1	vertical cable section, type 1
FVR2	vertical cable section, type 2
FVR3	vertical cable section, type 1, random dimensions
FVR4	vertical cable section, type 2, random dimensions
SPT1	phase transposition section, type 1
SPT2	phase transposition section, type 2
SPT3	phase transposition section, type 3, random dimensions
SPT4	phase transposition section, special design



## Appendix 2. Designation of the poles configuration

E	3P+N
G	3P+N+Fe
I	3P+N+0,5Fe
Busbar body performs a function of Pe	

## Appendix 3. Designation of the rated current of the product or of the bus height

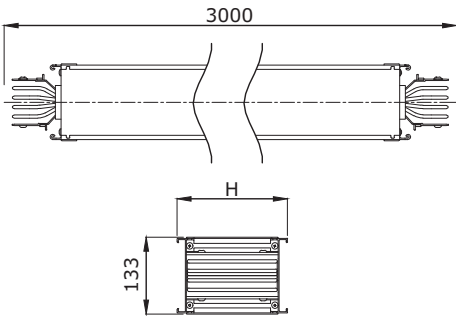
06	630 A
08	800 A
10	1000 A
13	1250 A
16	1600 A
20	2000 A
25	2500 A
32	3200 A
40	4000 A
50	5000 A
64	6400 A
90	accessories (for a busbar of any height)
91	60 mm high bus
92	80 mm high bus
93	100 mm high bus
94	160 mm high bus
95	200 mm high bus
96	240 mm high bus
97	2x160 mm high bus
98	2x200 mm high bus
99	2x240 mm high bus

## Technical standards base on the application of DKC power busbars\*

1. Drawings of terminals to insert into enclosure
2. "Hercules" busbar dynamic blocks
3. Mounting instruction for "Hercules" power and distribution busbar
4. Operation and application instruction for "Hercules" main and distribution busbar
5. Mounting instruction for fire-resistant penetrations of "Hercules" power and distribution busbar
6. Certificates.

\* On the issue of receiving the regulatory and technical documents please contact the branch offices of DKC or download from the DKC website

Straight element



- Purpose:**
- construction of straight runs of busbar line.
- Characteristics:**
- protection class IP55, increase up to IP65 is possible;
  - F-class isolation up to 155 °C, halogen free;
  - powder coating RAL 7035, other RAL colors are available;
  - aluminum body as a PE-conductor;
  - the length is indicated between the axes of connecting sections;
  - five-wire system width is 139 mm.

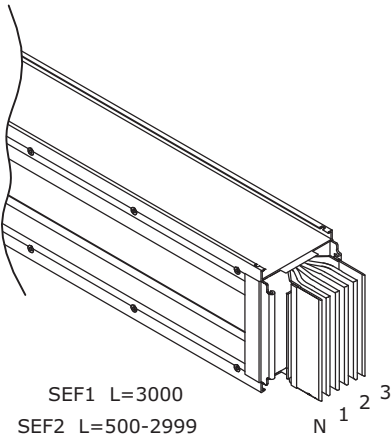
Rated current, A	Body height H, mm	Specific weight of the line, kg/m	Busbar height, mm	Code
630	96,8	9,7	60	PTA06E <b>SEF1</b> AA000
800	96,8	9,7	60	PTA08E <b>SEF1</b> AA000
1000	116,8	11,7	80	PTA10E <b>SEF1</b> AA000
1250	136,8	13,5	100	PTA13E <b>SEF1</b> AA000
1600	196,8	18,8	160	PTA16E <b>SEF1</b> AA000
2000	236,8	22,3	200	PTA20E <b>SEF1</b> AA000
2500	276,8	26,5	240	PTA25E <b>SEF1</b> AA000
3200	362,3	36,5	2x160	PTA32E <b>SEF1</b> AA000
4000	442,3	43,7	2x200	PTA40E <b>SEF1</b> AA000
5000	522,3	52,0	2x240	PTA50E <b>SEF1</b> AA000

Coding

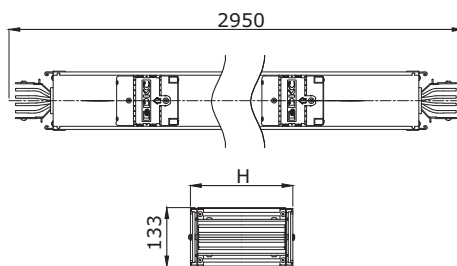
SEF1 = length 3000 mm  
SEF2 = length from 500 to 2999 mm

Variants

3P+N+PE (body)	PTA06E <b>SEF1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06G <b>SEF1</b> AA000



## Straight element with tap off box facilities



### Purpose:

- power extraction from the busbar.

### Characteristics:

- the section may be turned upwards, as well as downwards by tapping points;
- connection and disconnection of the boxes may be carried out without busbar cutting-off from network;
- the length is indicated between the axes of connecting sections;
- distance between tapping points can be changed.

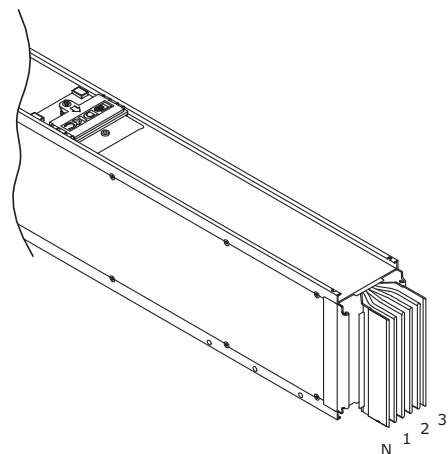
Rated current, A	Body height H, mm	Specific weight of the line, kg/m	Busbar height, mm	Code
630	96,8	9,7	60	PTA06 <b>SP11</b> AA000
800	96,8	9,7	60	PTA08 <b>SP11</b> AA000
1000	116,8	11,7	80	PTA10 <b>SP11</b> AA000
1250	136,8	13,5	100	PTA13 <b>SP11</b> AA000
1600	196,8	18,8	160	PTA16 <b>SP11</b> AA000
2000	236,8	22,3	200	PTA20 <b>SP11</b> AA000
2500	276,8	26,5	240	PTA25 <b>SP11</b> AA000
3200	362,3	36,5	2x160	PTA32 <b>SP11</b> AA000
4000	442,3	43,7	2x200	PTA40 <b>SP11</b> AA000
5000	522,3	52,0	2x240	PTA50 <b>SP11</b> AA000

### Coding

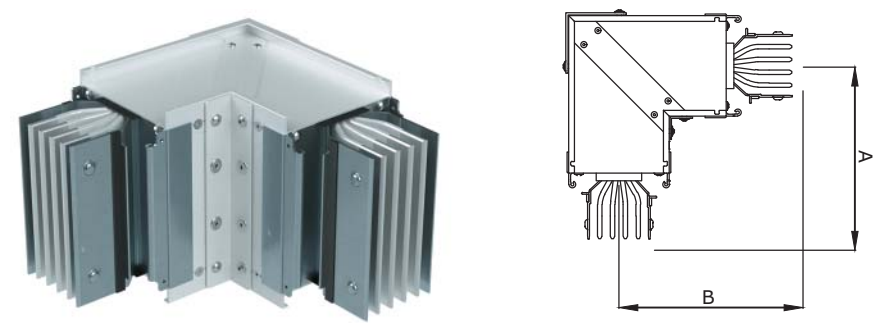
SP11 = 2950 mm, 3 tapping points from the one side  
 SP12 = 500-2950 mm, 3 tapping points from the one side  
 SP13 = 500-2950 mm, 2 tapping points from the one side  
 SP14 = 500-2950 mm, 1 tapping points from the one side  
 SP15 = 500-2950 mm, 4 tapping points from the one side  
 SP16 = 2400 mm, 2 tapping points from the one side  
 SP21 = 2950 mm, 3 tapping point on both sides  
 SP22 = 500-2950 mm, 3 tapping point on both sides  
 SP23 = 500-2950 mm, 2 tapping point on both sides  
 SP24 = 500-2950 mm, 1 tapping point on both sides  
 SP25 = 500-2950 mm, 4 tapping point on both sides

### Variants

3P+N+PE (body)	PTA06 <b>ESP11</b> AA000
3P+N+FE (bus)+PE (body)	PTA06 <b>GSP11</b> AA000



Horizontal elbow



**Purpose:**

- horizontal turn of the line.

**Characteristics:**

- suitable for the turn to the right and to the left;
- the length is indicated up to the axis of connecting section.

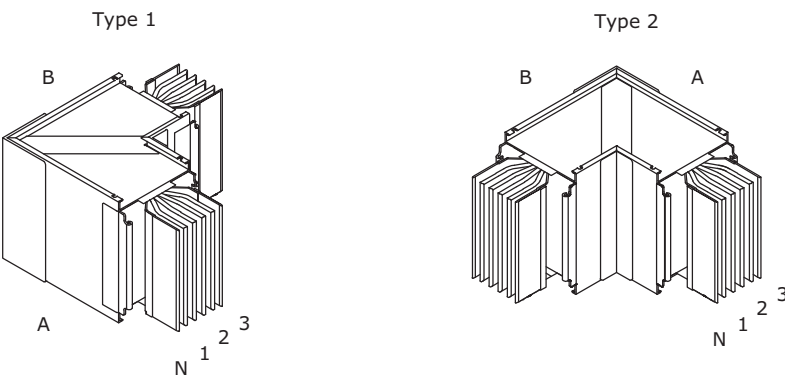
Rated current, A	A standard, mm	B standard, mm	A max, mm	B max, mm	Code
630	250	250	749	749	PTA06 <b>HEL1</b> AA000
800	250	250	749	749	PTA08 <b>HEL1</b> AA000
1000	250	250	749	749	PTA10 <b>HEL1</b> AA000
1250	250	250	749	749	PTA13 <b>HEL1</b> AA000
1600	250	250	749	749	PTA16 <b>HEL1</b> AA000
2000	250	250	749	749	PTA20 <b>HEL1</b> AA000
2500	250	250	749	749	PTA25 <b>HEL1</b> AA000
3200	250	250	749	749	PTA32 <b>HEL1</b> AA000
4000	250	250	749	749	PTA40 <b>HEL1</b> AA000
5000	250	250	749	749	PTA50 <b>HEL1</b> AA000

Coding

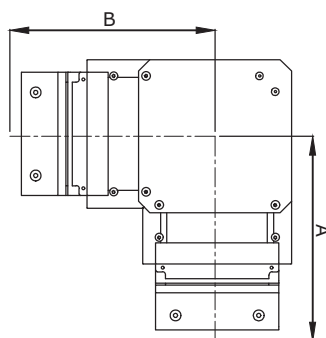
HEL1 – type 1, standard dimensions  
HEL2 – type 2, standard dimensions  
HEL3 – type 1, non-standard dimensions  
HEL4 – type 2, non-standard dimensions

Variants

3P+N+PE (body)	PTA06 <b>E</b> HEL1AA000
3P+N+FE (bus)+PE (body)	PTA06 <b>G</b> HEL1AA000



## Vertical elbow



### Purpose:

- vertical turn of the line.

### Characteristics:

- suitable for the turn upwards and downwards;
- the length is indicated up to the axis of connecting section.

Rated current, A	A standard, mm	B standard, mm	A max, mm	B max, mm	Code
630	230	230	729	729	PTA06E <b>VEL1</b> AA000
800	230	230	729	729	PTA08E <b>VEL1</b> AA000
1000	240	240	739	739	PTA10E <b>VEL1</b> AA000
1250	250	250	749	749	PTA13E <b>VEL1</b> AA000
1600	280	280	779	779	PTA16E <b>VEL1</b> AA000
2000	300	300	799	799	PTA20E <b>VEL1</b> AA000
2500	320	320	819	819	PTA25E <b>VEL1</b> AA000
3200	370	370	869	869	PTA32E <b>VEL1</b> AA000
4000	410	410	909	909	PTA40E <b>VEL1</b> AA000
5000	450	450	949	949	PTA50E <b>VEL1</b> AA000

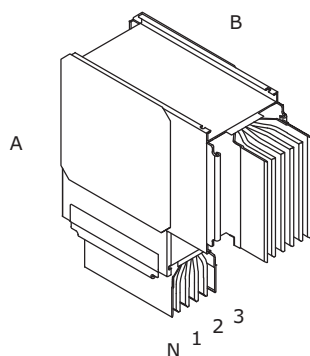
### Coding

VEL1 – standard dimensions

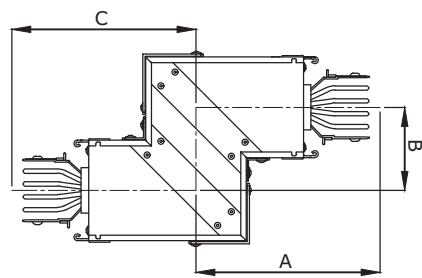
VEL3 – non-standard dimensions

### Variants

3P+N+PE (body)	PTA06E <b>VEL1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06G <b>VEL1</b> AA000



Double horizontal elbow

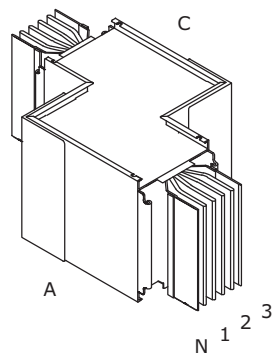


- Purpose:**
- obstacle avoidance in horizontal plane.
- Characteristics:**
- the dimensions are chosen from the given range;
  - the length is indicated up to the axis of connecting section.

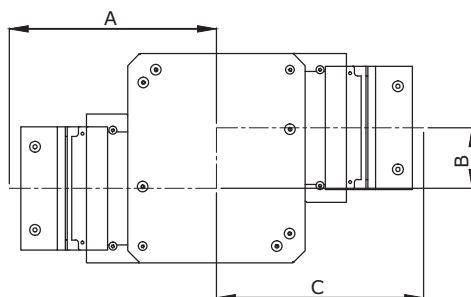
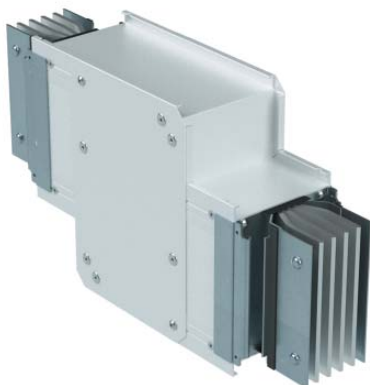
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	250	70	250	749	499	749	PTA06EDHE1AA000
800	250	70	250	749	499	749	PTA08EDHE1AA000
1000	250	70	250	749	499	749	PTA10EDHE1AA000
1250	250	70	250	749	499	749	PTA13EDHE1AA000
1600	250	70	250	749	499	749	PTA16EDHE1AA000
2000	250	70	250	749	499	749	PTA20EDHE1AA000
2500	250	70	250	749	499	749	PTA25EDHE1AA000
3200	250	70	250	749	499	749	PTA32EDHE1AA000
4000	250	70	250	749	499	749	PTA40EDHE1AA000
5000	250	70	250	749	499	749	PTA50EDHE1AA000

Variants

3P+N+PE (body)	PTA06EDHE1AA000
3P+N+FE (bus)+PE (body)	PTA06GDHE1AA000



## Double vertical elbow



### Purpose:

- obstacle avoidance in vertical plane.

### Characteristics:

- the dimensions are chosen from the given range;
- the length is indicated up to the axis of connecting section.

Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	230	80	230	729	459	729	PTA06EDVE1AA000
800	230	80	230	729	459	729	PTA08EDVE1AA000
1000	240	80	240	739	479	739	PTA10EDVE1AA000
1250	250	80	250	749	499	749	PTA13EDVE1AA000
1600	280	80	280	779	559	779	PTA16EDVE1AA000
2000	300	80	300	799	599	799	PTA20EDVE1AA000
2500	320	80	320	819	639	819	PTA25EDVE1AA000
3200	370	80	370	869	739	869	PTA32EDVE1AA000
4000	410	80	410	909	819	909	PTA40EDVE1AA000
5000	450	80	450	949	899	949	PTA50EDVE1AA000

### Coding

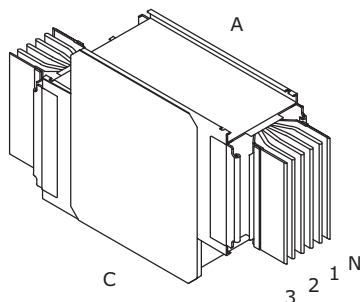
DVE1 – type 1

DVE2 – type 2

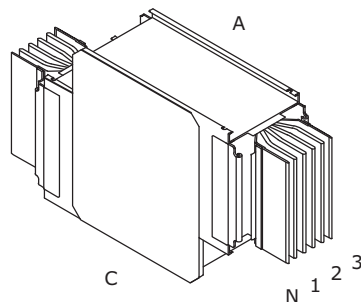
### Variants

3P+N+PE (body)	PTA06EDVE1AA000
3P+N+FE (bus)+PE (body)	PTA06GDVE1AA000

Type 1

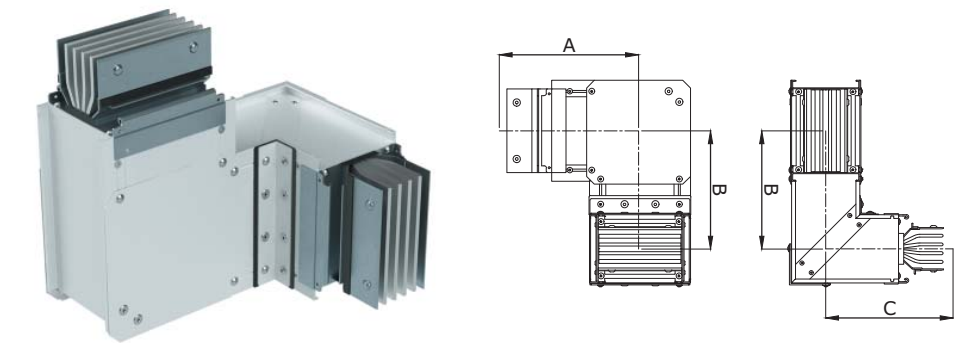


Type 2





Horizontal + vertical elbow



- Purpose:**
- turn of the line in two planes.
- Characteristics:**
- the dimensions are chosen from the given range;
  - the length is indicated up to the axis of connecting section.

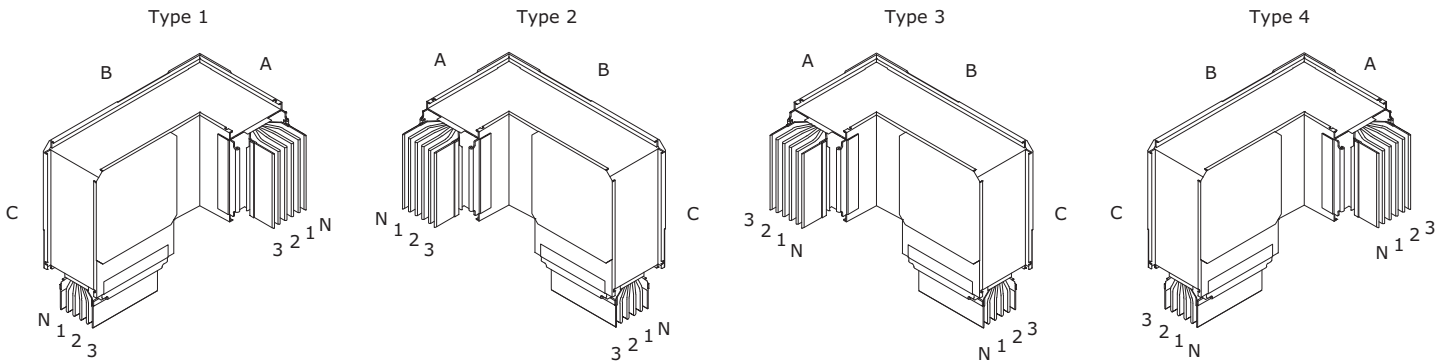
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	250	180	230	749	479	729	PTA06EHVE1AA000
800	250	180	230	749	479	729	PTA08EHVE1AA000
1000	250	190	240	749	489	739	PTA10EHVE1AA000
1250	250	200	250	749	499	749	PTA13EHVE1AA000
1600	250	230	280	749	429	779	PTA16EHVE1AA000
2000	250	250	300	749	549	799	PTA20EHVE1AA000
2500	250	270	320	749	569	819	PTA25EHVE1AA000
3200	250	315	370	749	619	869	PTA32EHVE1AA000
4000	250	355	410	749	659	909	PTA40EHVE1AA000
5000	250	395	450	749	699	949	PTA50EHVE1AA000

Coding

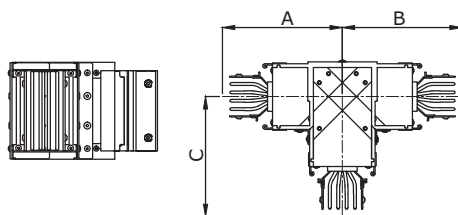
- HVE1 – type 1
- HVE2 – type 2
- HVE3 – type 3
- HVE4 – type 4

Variants

3P+N+PE (body)	PTA06EHVE1AA000
3P+N+FE (bus)+PE (body)	PTA06GHVE1AA000



## Horizontal tee



### Purpose:

- tapping of the line in horizontal plane.

### Characteristics:

- the dimensions are chosen from the given range;
- the length is indicated up to the axis of connecting section.

Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	C max, mm	Code
630	500	500	500	999	999	999	PTA06E <b>HTE1</b> AA000
800	500	500	500	999	999	999	PTA08E <b>HTE1</b> AA000
1000	500	500	500	999	999	999	PTA10E <b>HTE1</b> AA000
1250	500	500	500	999	999	999	PTA13E <b>HTE1</b> AA000
1600	500	500	500	999	999	999	PTA16E <b>HTE1</b> AA000
2000	600	600	600	999	999	999	PTA20E <b>HTE1</b> AA000
2500	600	600	600	999	999	999	PTA25E <b>HTE1</b> AA000
3200	600	600	600	999	999	999	PTA32E <b>HTE1</b> AA000
4000	600	600	600	999	999	999	PTA40E <b>HTE1</b> AA000
5000	600	600	600	999	999	999	PTA50E <b>HTE1</b> AA000

### Coding

HTE1 – type 1, standard dimensions

HTE2 – type 2, standard dimensions

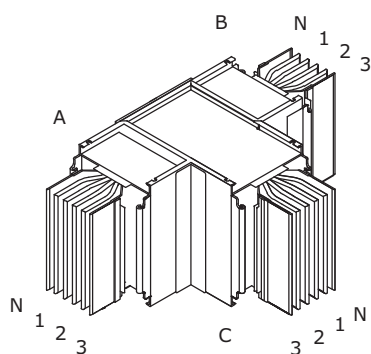
HTE5 – type 1, non-standard dimensions

HTE6 – type 2, non-standard dimensions

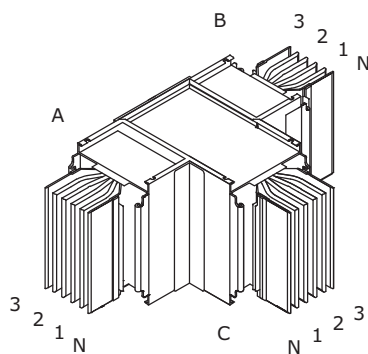
### Variants

3P+N+PE (body)	PTA06E <b>HTE1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06G <b>HTE1</b> AA000

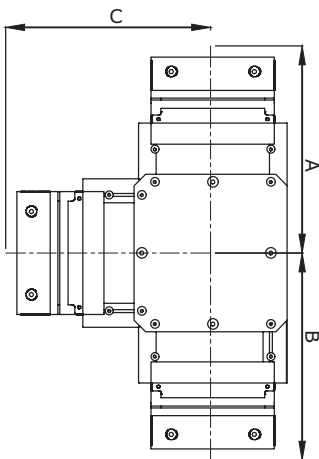
Type 1



Type 2



Vertical tee



- Purpose:**
- tapping of the line in vertical plane.
- Characteristics:**
- the dimensions are chosen from the given range;
  - the length is indicated up to the axis of connecting section.

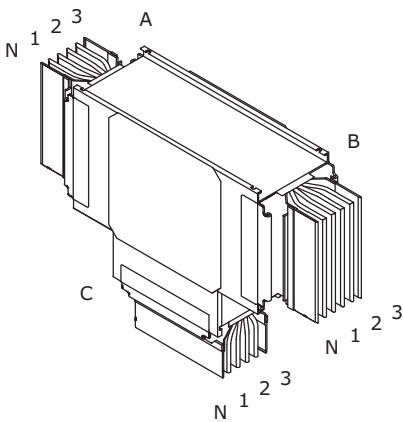
Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	C max, mm	Code
630	230	230	230	729	729	729	PTA06EVTE1AA000
800	230	230	230	729	729	729	PTA08EVTE1AA000
1000	240	240	240	739	739	739	PTA10EVTE1AA000
1250	250	250	250	749	749	749	PTA13EVTE1AA000
1600	280	280	280	779	779	779	PTA16EVTE1AA000
2000	300	300	300	799	799	799	PTA20EVTE1AA000
2500	320	320	320	819	819	819	PTA25EVTE1AA000
3200	370	370	370	869	869	869	PTA32EVTE1AA000
4000	410	410	410	909	909	909	PTA40EVTE1AA000
5000	450	450	450	949	949	949	PTA50EVTE1AA000

**Coding**

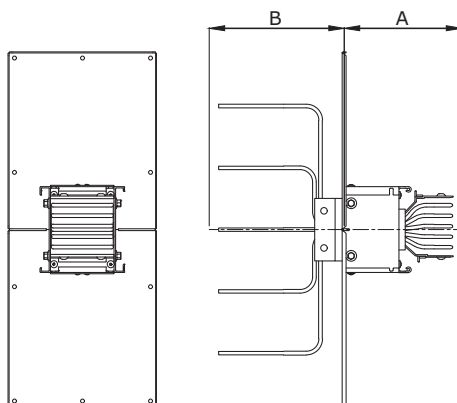
VTE1 – standard dimensions  
VTE5 – non-standard dimensions

Variants

3P+N+PE (body)	PTA06EVTE1AA000
3P+N+FE (bus)+PE (body)	PTA06GVTE1AA000



## Terminal unit



### Purpose:

- insertion of a busbar into enclosure or connection to the oil transformer.

### Characteristics:

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

Rated current, A	A standard, mm	B standard, mm	X standard, mm	Y standard, mm	B max, mm	Code
630	200	200	240	455	699	PTA06 <b>ETST</b> 1AA000
800	200	200	240	455	699	PTA08 <b>ETST</b> 1AA000
1000	200	200	240	455	699	PTA10 <b>ETST</b> 1AA000
1250	200	200	240	455	699	PTA13 <b>ETST</b> 1AA000
1600	200	200	380	455	699	PTA16 <b>ETST</b> 1AA000
2000	200	200	380	455	699	PTA20 <b>ETST</b> 1AA000
2500	200	200	380	455	699	PTA25 <b>ETST</b> 1AA000
3200	200	200	625	455	699	PTA32 <b>ETST</b> 1AA000
4000	200	200	625	455	699	PTA40 <b>ETST</b> 1AA000
5000	200	200	625	455	699	PTA50 <b>ETST</b> 1AA000

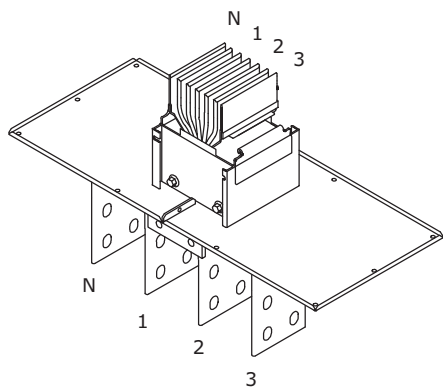
## Coding

TST1 – standard dimensions

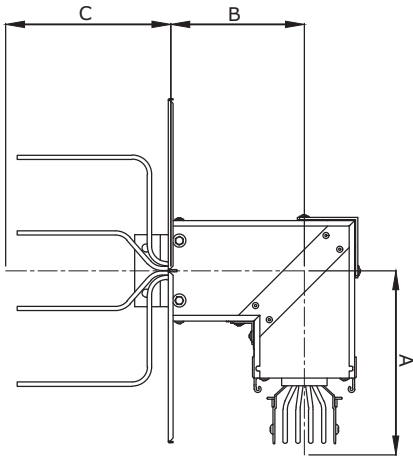
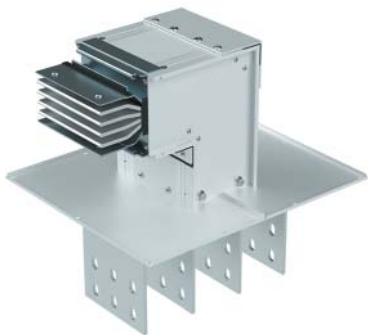
TST2 – non-standard dimensions

## Variants

3P+N+PE (body)	PTA06 <b>ETST</b> 1AA000
3P+N+FE (bus)+PE (body)	PTA06 <b>GTST</b> 1AA000



Horizontal elbow + terminal unit



**Purpose:**

- insertion of a busbar into enclosure or connection to the oil transformer.

**Characteristics:**

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

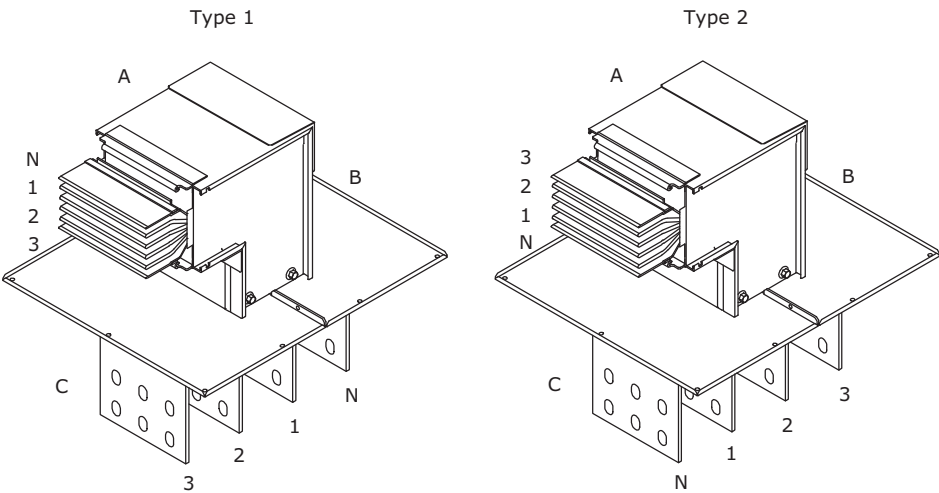
Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	Code
630	250	180	200	749	449	PTA06EHET1AA000
800	250	180	200	749	449	PTA08EHET1AA000
1000	250	180	200	749	449	PTA10EHET1AA000
1250	250	180	200	749	449	PTA13EHET1AA000
1600	250	180	200	749	449	PTA16EHET1AA000
2000	250	180	200	749	449	PTA20EHET1AA000
2500	250	180	200	749	449	PTA25EHET1AA000
3200	250	180	200	749	449	PTA32EHET1AA000
4000	250	180	200	749	449	PTA40EHET1AA000
5000	250	180	200	749	449	PTA50EHET1AA000

Coding

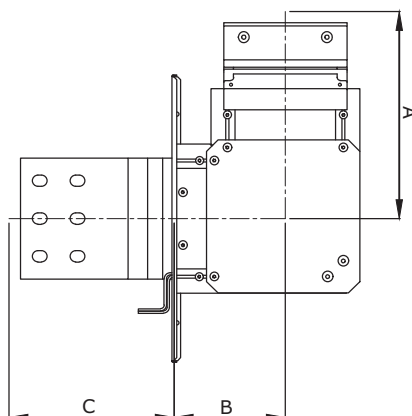
HET1 – type 1, standard dimensions  
HET2 – type 2, standard dimensions  
HET3 – type 1, non-standard dimensions  
HET4 – type 2, non-standard dimensions

Variants

3P+N+PE (body)	PTA06EHET1AA000
3P+N+FE (bus)+PE (body)	PTA06GHET1AA000



## Vertical elbow + terminal unit



### Purpose:

- insertion of a busbar into enclosure or connection to the oil transformer.

### Characteristics:

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

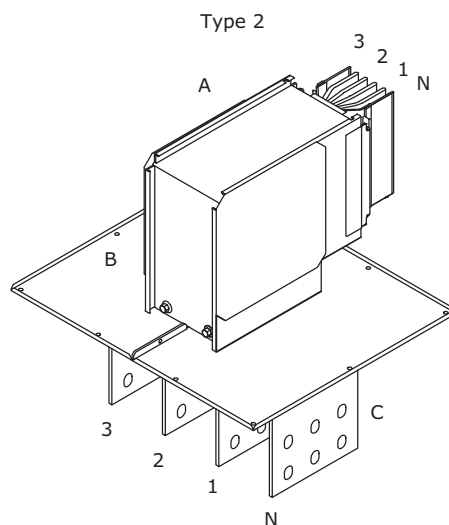
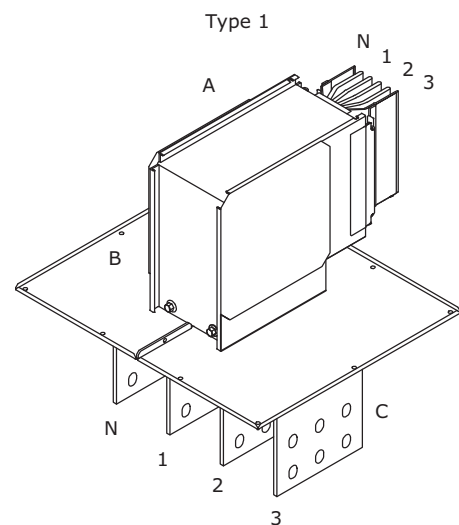
Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	Code
630	230	100	200	729	429	PTA06 <b>VET1</b> AA000
800	230	100	200	729	429	PTA08 <b>VET1</b> AA000
1000	240	110	200	739	439	PTA10 <b>VET1</b> AA000
1250	250	120	200	749	449	PTA13 <b>VET1</b> AA000
1600	280	150	200	779	479	PTA16 <b>VET1</b> AA000
2000	300	170	200	799	499	PTA20 <b>VET1</b> AA000
2500	320	190	200	819	519	PTA25 <b>VET1</b> AA000
3200	370	235	200	869	569	PTA32 <b>VET1</b> AA000
4000	410	275	200	909	609	PTA40 <b>VET1</b> AA000
5000	450	315	200	949	649	PTA50 <b>VET1</b> AA000

### Coding

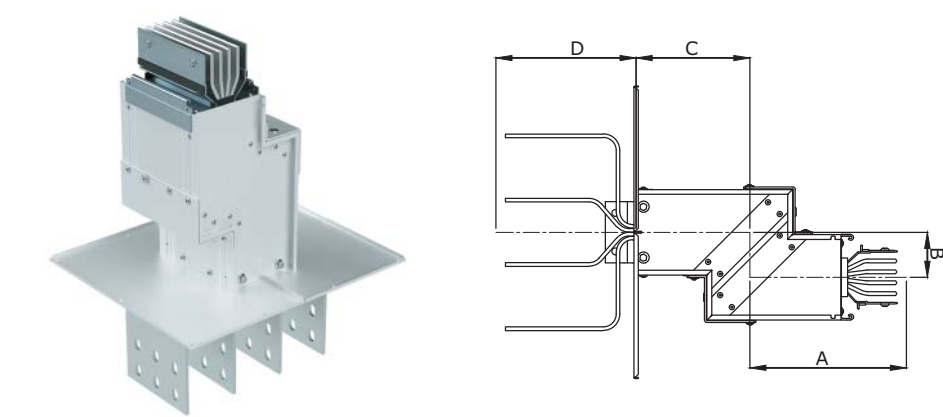
VET1 – type 1, standard dimensions  
VET2 – type 2, standard dimensions  
VET3 – type 1, non-standard dimensions  
VET4 – type 2, non-standard dimensions

### Variants

3P+N+PE (body)	PTA06 <b>EVET1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06 <b>GVET1</b> AA000



Double horizontal elbow + terminal unit



**Purpose:**

- insertion of a busbar into enclosure or connection to the oil transformer.

**Characteristics:**

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

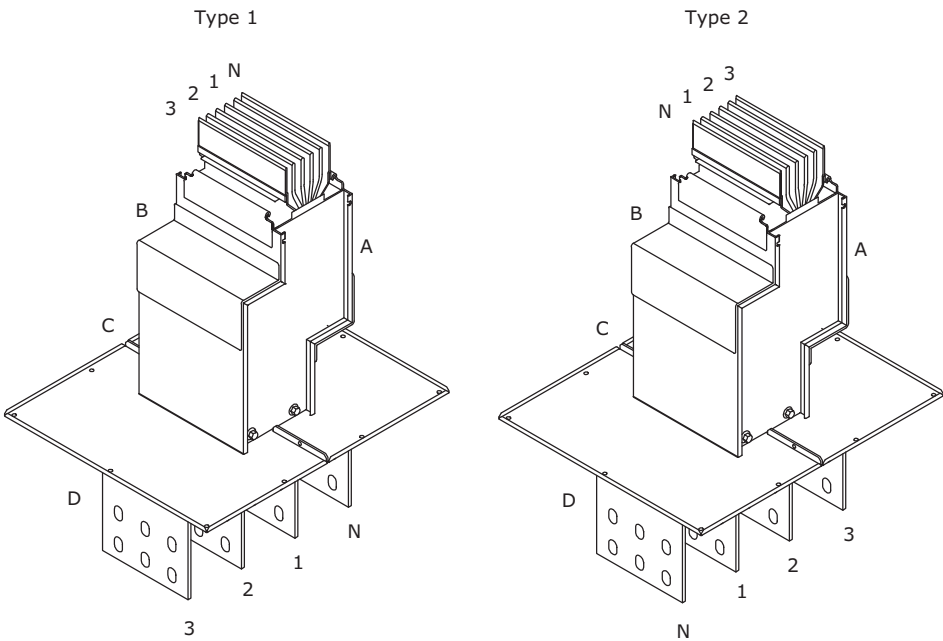
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	250	70	180	749	499	429	PTA06EDHT1AA000
800	250	70	180	749	499	429	PTA08EDHT1AA000
1000	250	70	180	749	499	429	PTA10EDHT1AA000
1250	250	70	180	749	499	429	PTA13EDHT1AA000
1600	250	70	180	749	499	429	PTA16EDHT1AA000
2000	250	70	180	749	499	429	PTA20EDHT1AA000
2500	250	70	180	749	499	429	PTA25EDHT1AA000
3200	250	70	180	749	499	429	PTA32EDHT1AA000
4000	250	70	180	749	499	429	PTA40EDHT1AA000
5000	250	70	180	749	499	429	PTA50EDHT1AA000

Coding

DHT1 – type 1  
DHT2 – type 2

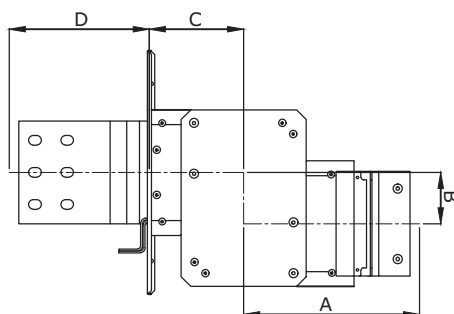
Variants

3P+N+PE (body)	PTA06EDHT1AA000
3P+N+FE (bus)+PE (body)	PTA06GDHT1AA000





## Double vertical elbow + terminal unit



### Purpose:

- insertion of a busbar into enclosure or connection to the oil transformer.

### Characteristics:

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	230	80	100	729	459	429	PTA06EDVT1AA000
800	230	80	100	729	459	429	PTA08EDVT1AA000
1000	240	80	110	739	479	439	PTA10EDVT1AA000
1250	250	80	120	749	499	449	PTA13EDVT1AA000
1600	280	80	150	779	559	479	PTA16EDVT1AA000
2000	300	80	170	799	599	499	PTA20EDVT1AA000
2500	320	80	190	819	639	519	PTA25EDVT1AA000
3200	370	80	235	869	739	569	PTA32EDVT1AA000
4000	410	80	275	909	819	609	PTA40EDVT1AA000
5000	450	80	315	949	899	649	PTA50EDVT1AA000

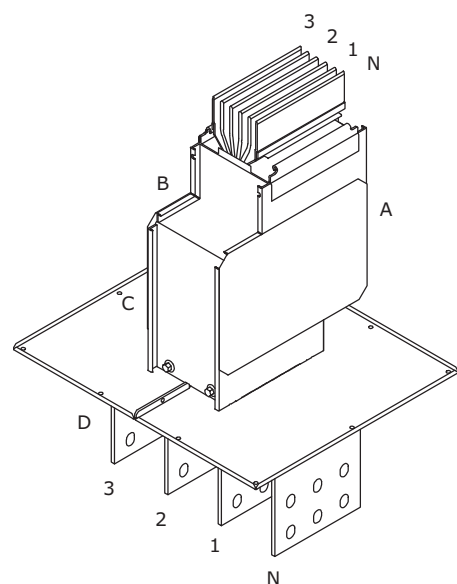
### Coding

DVT1 – type 1  
DVT2 – type 2

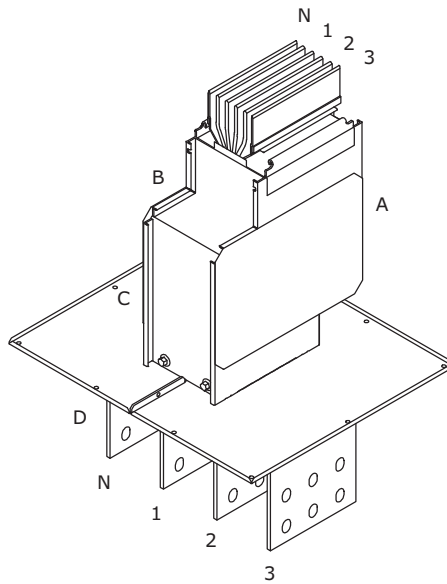
### Variants

3P+N+PE (body)	PTA06EDVT1AA000
3P+N+FE (bus)+PE (body)	PTA06GDVT1AA000

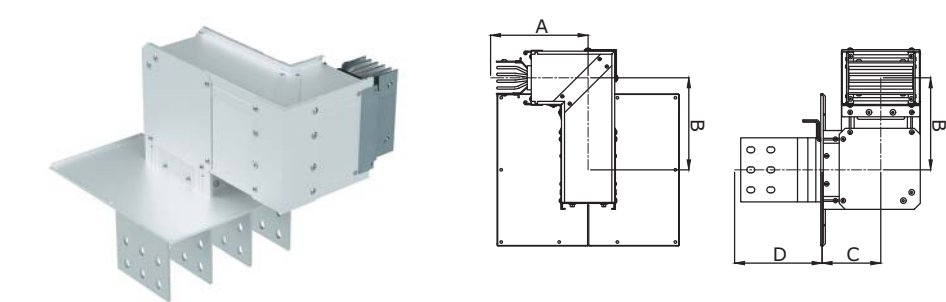
Type 1



Type 2



Horizontal elbow + vertical + terminal unit



**Purpose:**

- insertion of a busbar into enclosure or connection to the oil transformer.

**Characteristics:**

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

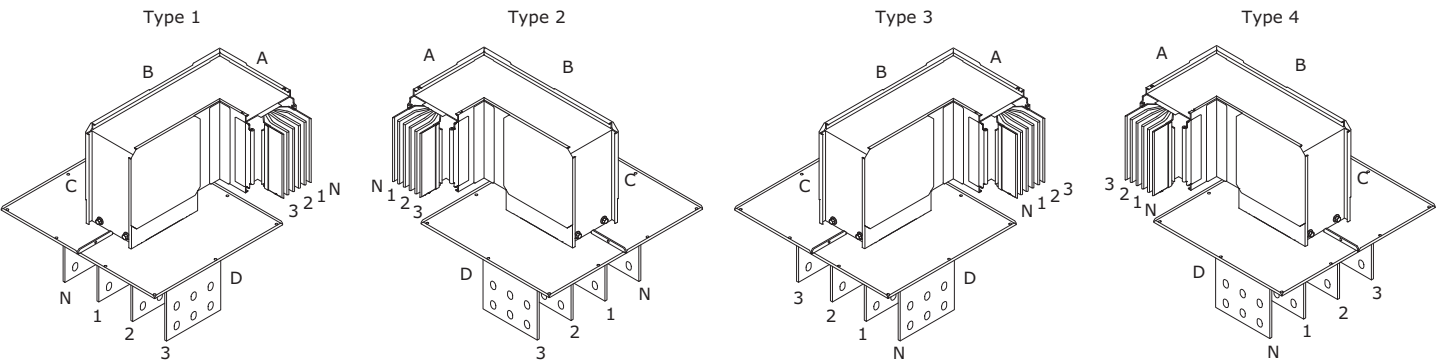
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	250	180	100	749	479	429	PTA06EHVT1AA000
800	250	180	100	749	479	429	PTA08EHVT1AA000
1000	250	190	110	749	489	439	PTA10EHVT1AA000
1250	250	200	120	749	499	449	PTA13EHVT1AA000
1600	250	230	150	749	429	479	PTA16EHVT1AA000
2000	250	250	170	749	549	499	PTA20EHVT1AA000
2500	250	270	190	749	569	519	PTA25EHVT1AA000
3200	250	315	235	749	619	569	PTA32EHVT1AA000
4000	250	355	275	749	659	609	PTA40EHVT1AA000
5000	250	395	315	749	699	649	PTA50EHVT1AA000

Coding

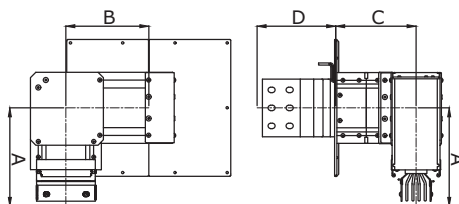
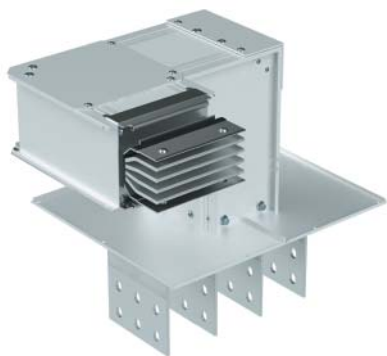
HVT1 – type 1  
HVT2 – type 2  
HVT3 – type 3  
HVT4 – type 4

Variants

3P+N+PE (body)	PTA06EHVT1AA000
3P+N+FE (bus)+PE (body)	PTA06GHVT1AA000



## Vertical elbow + horizontal + terminal unit



### Purpose:

- insertion of a busbar into enclosure or connection to the oil transformer.

### Characteristics:

- contact group is made of tinned aluminum;
- the length is indicated up to the axis of connecting section.

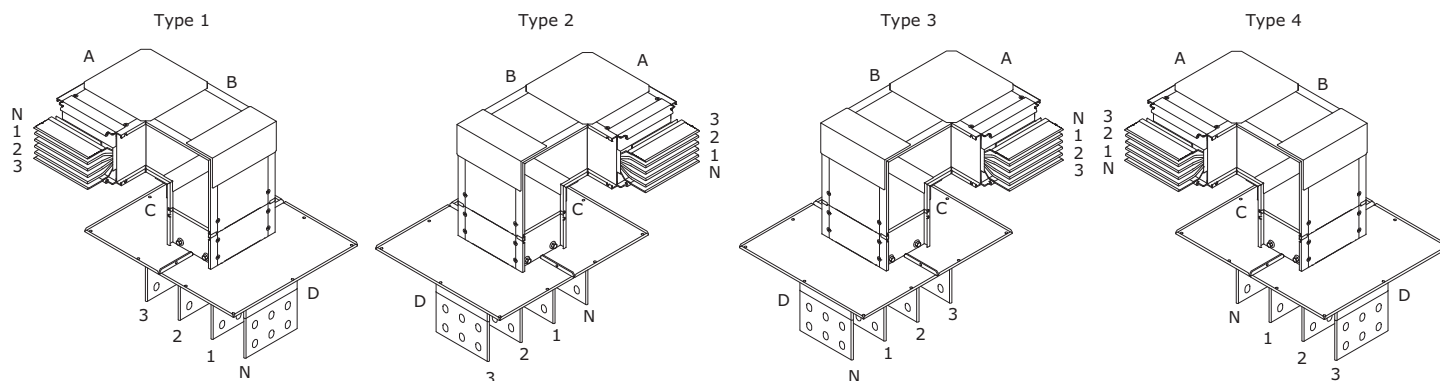
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
630	250	180	100	749	479	429	PTA06EVHT1AA000
800	250	180	100	749	479	429	PTA08EVHT1AA000
1000	250	190	110	749	489	439	PTA10EVHT1AA000
1250	250	200	120	749	499	449	PTA13EVHT1AA000
1600	250	230	150	749	429	479	PTA16EVHT1AA000
2000	250	250	170	749	549	499	PTA20EVHT1AA000
2500	250	270	190	749	569	519	PTA25EVHT1AA000
3200	250	315	235	749	619	569	PTA32EVHT1AA000
4000	250	355	275	749	659	609	PTA40EVHT1AA000
5000	250	395	315	749	699	649	PTA50EVHT1AA000

### Coding

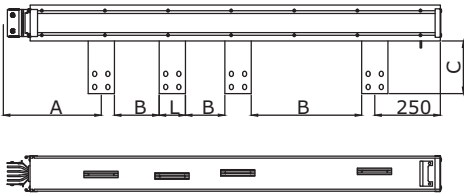
VHT1 – type 1  
VHT2 – type 2  
VHT3 – type 3  
VHT4 – type 4

### Variants

3P+N+PE (body)	PTA06EVHT1AA000
3P+N+FE (bus)+PE (body)	PTA06GVHT1AA000



Terminal with parallel phases



- Purpose:**
- busbar connection to the dry transformer.
- Characteristics:**
- interfacial distances are manufactured for specific connecting dimensions of the transformer;
  - phase order is selected for a specific transformer;
  - nominal values of 3200–5000 A have 2 parallel joining contacts.

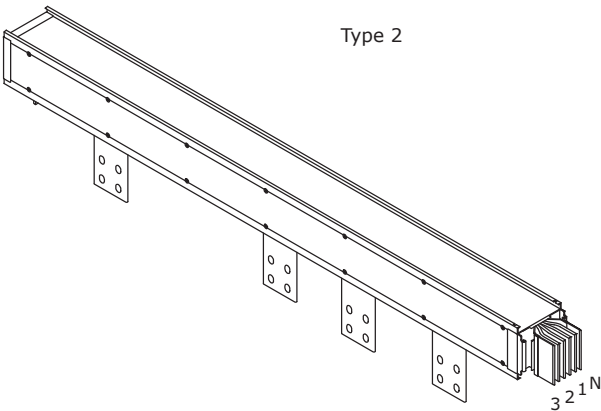
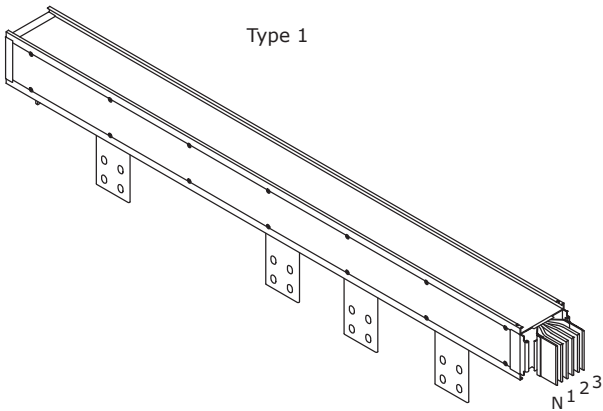
Rated current, A	A min, mm	B min, mm	C min, mm	L standard, mm	Code
630	450	40	150	60	PTA06ETPP1AA000
800	450	40	150	60	PTA08ETPP1AA000
1000	450	40	150	80	PTA10ETPP1AA000
1250	450	40	150	100	PTA13ETPP1AA000
1600	450	40	150	160	PTA16ETPP1AA000
2000	450	40	150	200	PTA20ETPP1AA000
2500	450	40	150	240	PTA25ETPP1AA000
3200	450	40	150	160	PTA32ETPP1AA000
4000	450	40	150	200	PTA40ETPP1AA000
5000	450	40	150	240	PTA50ETPP1AA000

Coding

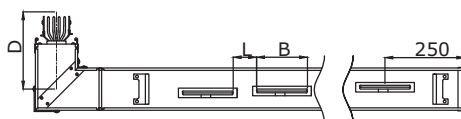
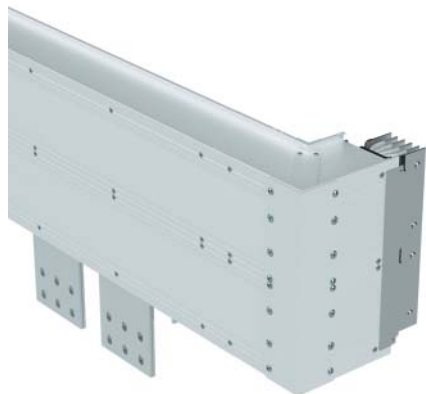
TPP1 – type 1  
TPP2 – type 2

Variants

3P+N+PE (body)	PTA06ETPP1AA000
3P+N+FE (bus)+PE (body)	PTA06GTPP1AA000



## Terminal with parallel phases with horizontal elbow



### Purpose:

- busbar connection to the dry transformer.

### Characteristics:

- interfacial distances are manufactured for specific connecting dimensions of the transformer;
- phase sequence is selected for a specific transformer;
- nominal values of 3200–5000 A have 2 parallel joining contacts.

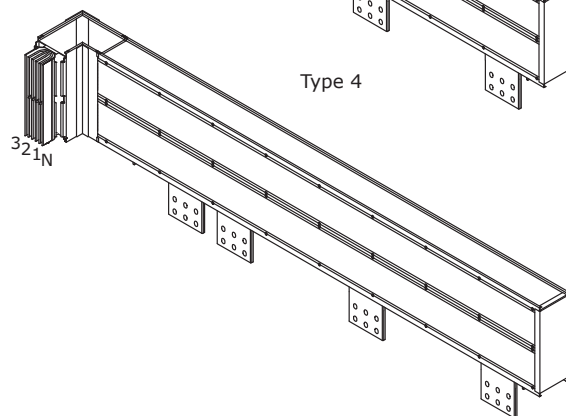
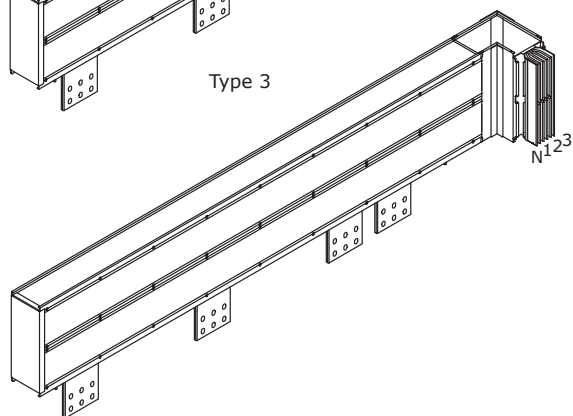
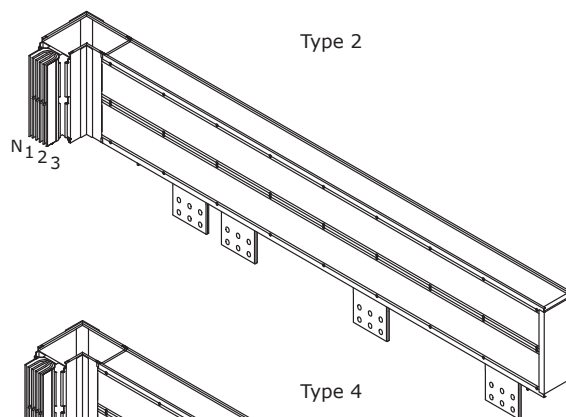
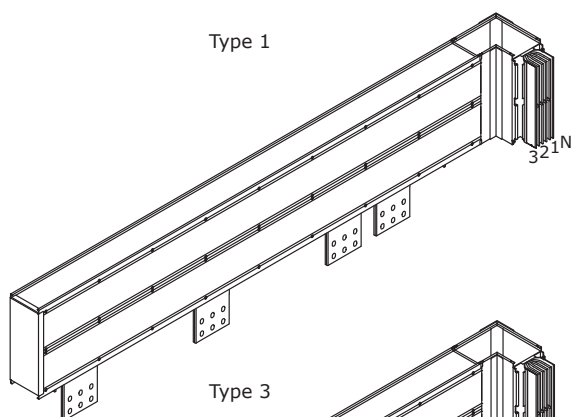
Rated current, A	A min, mm	B min, mm	C min, mm	L standard, mm	D standard, mm	Code
630	450	40	150	60	250	PTA06EHTP1AA000
800	450	40	150	60	250	PTA08EHTP1AA000
1000	450	40	150	80	250	PTA10EHTP1AA000
1250	450	40	150	100	250	PTA13EHTP1AA000
1600	450	40	150	160	250	PTA16EHTP1AA000
2000	450	40	150	200	250	PTA20EHTP1AA000
2500	450	40	150	240	250	PTA25EHTP1AA000
3200	450	40	150	160	250	PTA32EHTP1AA000
4000	450	40	150	200	250	PTA40EHTP1AA000
5000	450	40	150	240	250	PTA50EHTP1AA000

### Coding

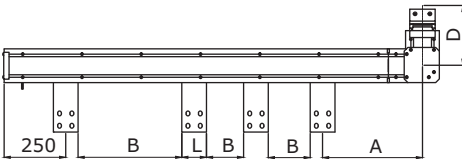
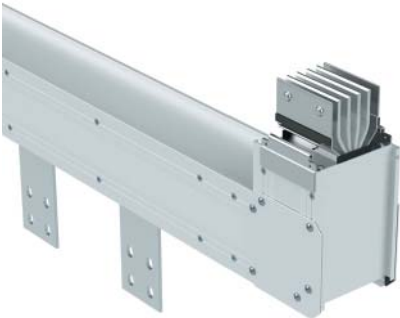
HTP1 – type 1  
HTP2 – type 2  
HTP3 – type 3  
HTP4 – type 4

### Variants

3P+N+PE (body)	PTA06EHTP1AA000
3P+N+FE (bus)+PE (body)	PTA06GHTP1AA000



Terminal with parallel phases with vertical elbow



- Purpose:**
- busbar connection to the dry transformer.
- Characteristics:**
- interfacial distances are manufactured for specific connecting dimensions of the transformer;
  - phase order is selected for a specific transformer;
  - nominal values of 3200–5000 A have 2 parallel joining contacts.

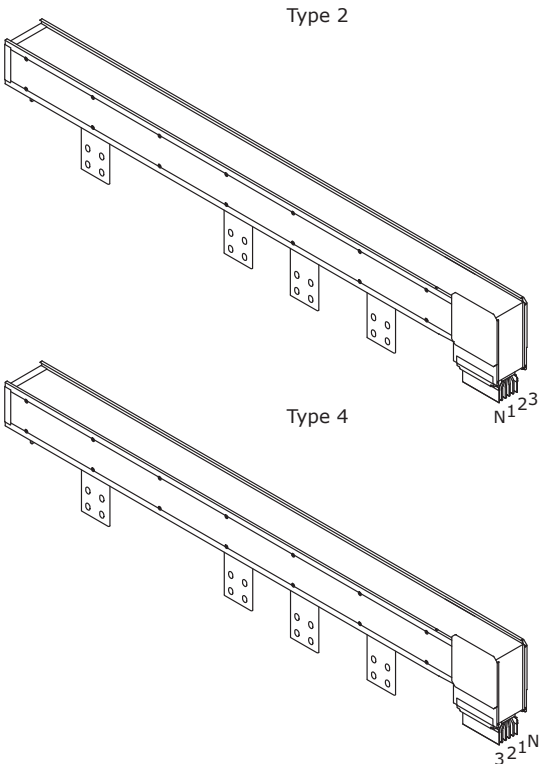
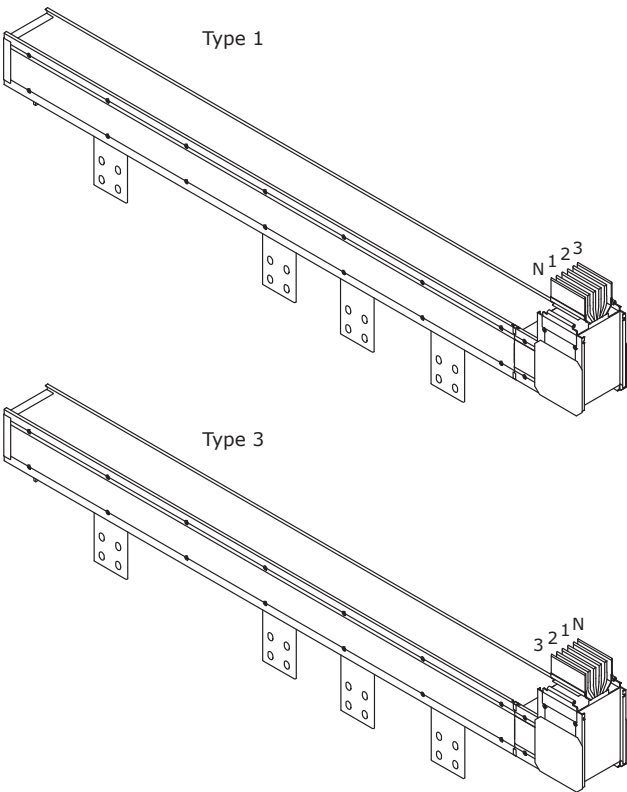
Rated current, A	A min, mm	B min, mm	C min, mm	L standard, mm	D standard, mm	Code
630	450	40	150	60	230	PTA06EVTP1AA000
800	450	40	150	60	230	PTA08EVTP1AA000
1000	450	40	150	80	240	PTA10EVTP1AA000
1250	450	40	150	100	250	PTA13EVTP1AA000
1600	450	40	150	160	280	PTA16EVTP1AA000
2000	450	40	150	200	300	PTA20EVTP1AA000
2500	450	40	150	240	320	PTA25EVTP1AA000
3200	450	40	150	160	370	PTA32EVTP1AA000
4000	450	40	150	200	410	PTA40EVTP1AA000
5000	450	40	150	240	450	PTA50EVTP1AA000

Coding

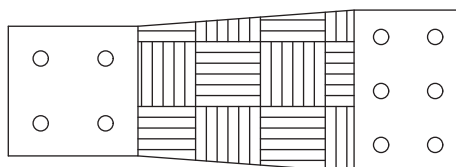
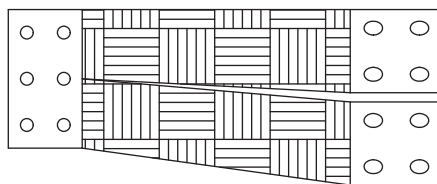
- VTP1 – type 1  
VTP2 – type 2  
VTP3 – type 3  
VTP4 – type 4

Variants

3P+N+PE (body)	PTA06EVTP1AA000
3P+N+FE (bus)+PE (body)	PTA06GVTP1AA000



## Set of flexible busbars

**Purpose:**

- busbar connection to the transfer.

**Characteristics:**

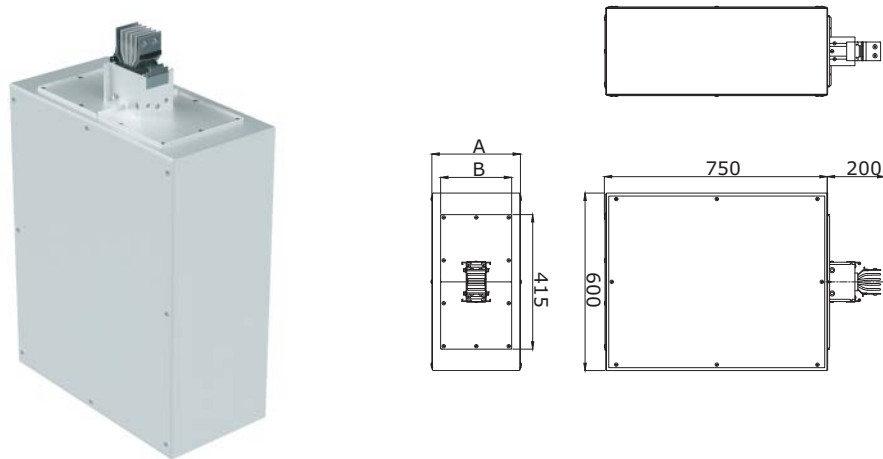
- manufactured for special dimensions of the transformer contact group;
- the set may include from 4 to 16 buses.

Rated current, A	Code
630	PTA06EFLXJAA000
800	PTA08EFLXJAA000
1000	PTA10EFLXJAA000
1250	PTA13EFLXJAA000
1600	PTA16EFLXJAA000
2000	PTA20EFLXJAA000
2500	PTA25EFLXJAA000
3200	PTA32EFLXJAA000
4000	PTA40EFLXJAA000
5000	PTA50EFLXJAA000

**Variants**

3P+N+PE (body)	PTA06EFLXJAA000
3P+N+FE (bus)+PE (body)	PTA06GFLXJAA000

End feeder



- Purpose:**
- busbar connection to the cable line.
- Characteristics:**
- contact group is made of tinned aluminum;
  - side and bottom walls are removable.

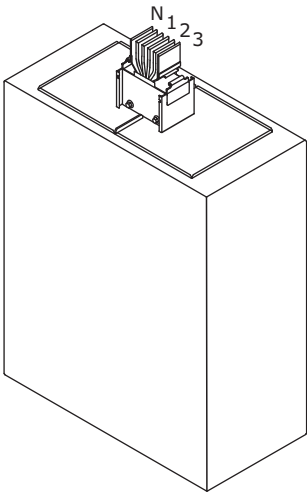
Rated current, A	A standard, mm	B standard, mm	C standard, mm	D standard, mm	Code
630	300	200	415	200	PTA06 <b>FED1</b> AA000
800	300	200	415	200	PTA08 <b>FED1</b> AA000
1000	300	200	415	200	PTA10 <b>FED1</b> AA000
1250	300	200	415	200	PTA13 <b>FED1</b> AA000
1600	450	340	415	200	PTA16 <b>FED1</b> AA000
2000	450	340	415	200	PTA20 <b>FED1</b> AA000
2500	450	340	415	200	PTA25 <b>FED1</b> AA000
3200	700	585	415	200	PTA32 <b>FED1</b> AA000
4000	700	585	415	200	PTA40 <b>FED1</b> AA000
5000	700	585	415	200	PTA50 <b>FED1</b> AA000

**Coding**

FED1 – standard dimensions  
FED2 – non-standard dimensions

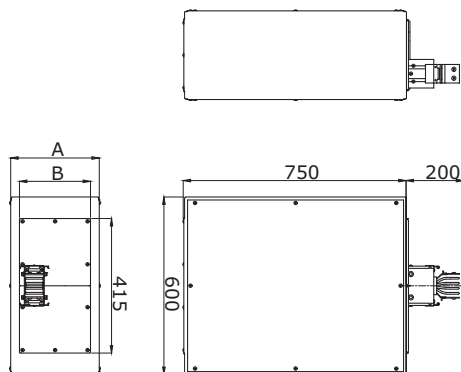
Variants

3P+N+PE (body)	PTA06 <b>EFED1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06 <b>GFED1</b> AA000





## End feeder for vertical runs



### Purpose:

- connection of the vertically disposed busbar to the cable line.

### Characteristics:

- contact group is made of tinned aluminum;
- side and bottom walls are removable.

Rated current, A	A standard, mm	B standard, mm	C standard, mm	D standard, mm	E standard, mm	Code
630	300	200	415	200	100	PTA06E <b>FVR1</b> AA000
800	300	200	415	200	100	PTA08E <b>FVR1</b> AA000
1000	300	200	415	200	100	PTA10E <b>FVR1</b> AA000
1250	300	200	415	200	100	PTA13E <b>FVR1</b> AA000
1600	450	340	415	200	100	PTA16E <b>FVR1</b> AA000
2000	450	340	415	200	100	PTA20E <b>FVR1</b> AA000
2500	450	340	415	200	100	PTA25E <b>FVR1</b> AA000
3200	700	585	415	200	100	PTA32E <b>FVR1</b> AA000
4000	700	585	415	200	100	PTA40E <b>FVR1</b> AA000
5000	700	585	415	200	100	PTA50E <b>FVR1</b> AA000

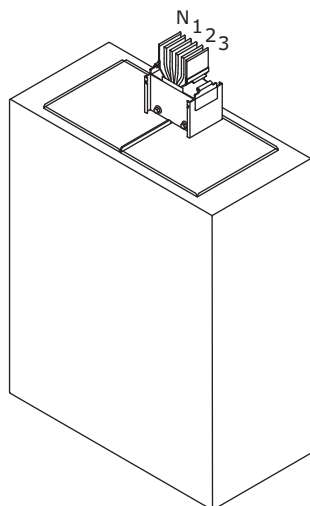
### Coding

FVR1 – type 1, standard dimensions  
FVR2 – type 2, standard dimensions  
FVR3 – type 1, non-standard dimensions  
FVR4 – type 1, non-standard dimensions

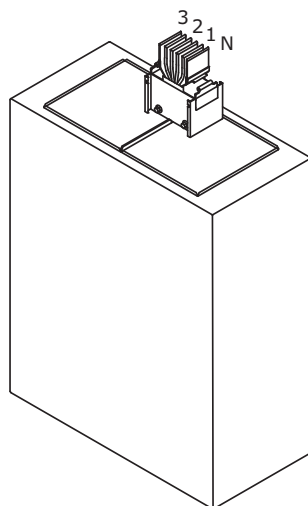
### Variants

3P+N+PE (body)	PTA06E <b>FVR1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06G <b>FVR1</b> AA000

Type 1



Type 2



Phase transposition section



**Purpose:**  
• phase-sequence reversal.

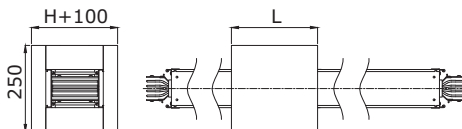
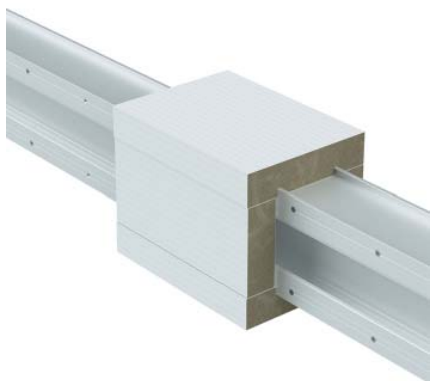
Rated current, A	Code
630	PTA06 <b>SPT1</b> AA000
800	PTA08 <b>SPT1</b> AA000
1000	PTA10 <b>SPT1</b> AA000
1250	PTA13 <b>SPT1</b> AA000
1600	PTA16 <b>SPT1</b> AA000
2000	PTA20 <b>SPT1</b> AA000
2500	PTA25 <b>SPT1</b> AA000
3200	PTA32 <b>SPT1</b> AA000
4000	PTA40 <b>SPT1</b> AA000
5000	PTA50 <b>SPT1</b> AA000

**Coding**  
SPT1 – type 1, standard dimensions  
SPT2 – type 2, standard dimensions  
SPT3 – type 3, non-standard dimensions  
SPTS – special design

**Variants**

3P+N+PE (body)	PTA06 <b>ESPT1</b> AA000
3P+N+FE (bus)+PE (body)	PTA06 <b>GSPT1</b> AA000

## Fire-resistant passage



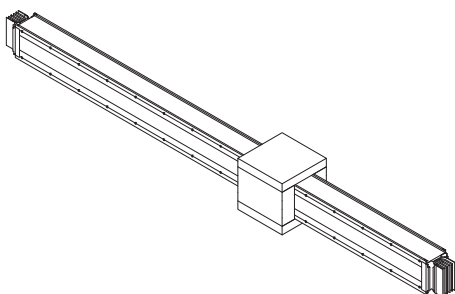
### Purpose:

- busbar passing through ceilings and walls with controlled degree of fire resistance.

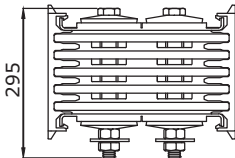
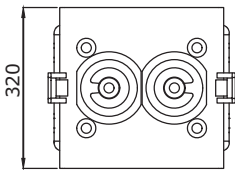
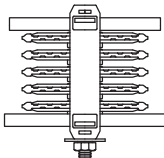
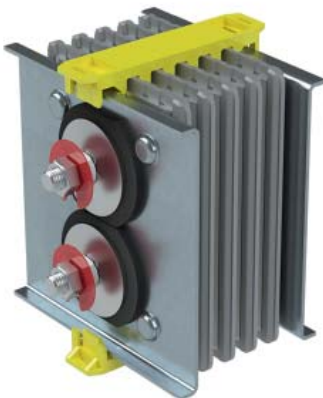
### Characteristics:

- assembled from "Fire-resistant partitions" group according to the instruction.

Rated current, A	120 min (500 mm depth)			180 min (1000 mm depth)		
	DP1201	DT1201	DS1201	DP1201	DT1201	DS1201
630	1 pieces	1 m	2 kg	2 pieces	2 m	3 kg
800	1 pieces	1 m	2 kg	2 pieces	2 m	3 kg
1000	1 pieces	2 m	2 kg	2 pieces	3 m	3 kg
1250	1 pieces	2 m	2 kg	2 pieces	4 m	3 kg
1600	1 pieces	3 m	3 kg	2 pieces	5 m	4 kg
2000	1 pieces	4 m	3 kg	2 pieces	7 m	4 kg
2500	1 pieces	4 m	3 kg	2 pieces	8 m	4 kg
3200	2 pieces	5 m	3 kg	3 pieces	10 m	5 kg
4000	2 pieces	7 m	3 kg	3 pieces	14 m	5 kg
5000	2 pieces	8 m	3 kg	3 pieces	16 m	5 kg



Connection section



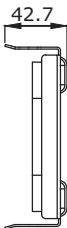
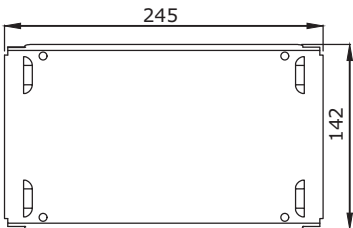
- Purpose:**
- connection of busbar sections.
- Characteristics:**
- additional gutters for heat extraction in separating delimiters;
  - breakaway nut for easy mounting;
  - compensation of the busbar thermal expansion.

Rated current, A	Code
630	PTA91EMON1AA000
800	PTA91EMON1AA000
1000	PTA92EMON1AA000
1250	PTA93EMON1AA000
1600	PTA94EMON1AA000
2000	PTA95EMON1AA000
2500	PTA96EMON1AA000
3200	PTA97EMON1AA000
4000	PTA98EMON1AA000
5000	PTA99EMON1AA000

Variants

3P+N+PE (body)	PTA91EMON1AA000
3P+N+FE (bus) + PE (body)	PTA91GMON1AA000
3P+FE (bus) + PE (body)	PTA91DMON1AA000
3P+2N+PE (body)	PTA91HMON1AA000

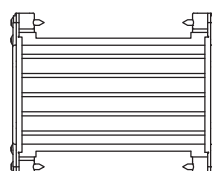
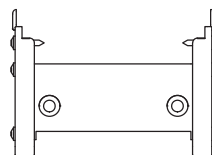
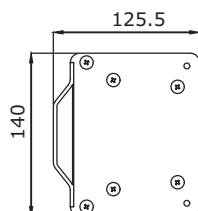
Cover of the connection



- Purpose:**
- connection of busbar sections.

Rated current, A	3P+N+PE (body)	3P+N+FE (bus)+PE (body)
630–5000	PTN90TJCO1AA000	PTN90UJCO1AA000

## End plug



### Purpose:

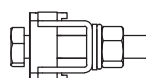
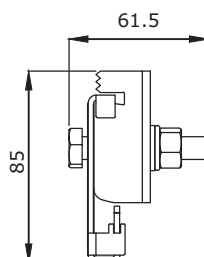
- cover to the ending of busbar line.

Rated current, A	Code
630	PTN91TECO1AA000
800	PTN91TECO1AA000
1000	PTN92TECO1AA000
1250	PTN93TECO1AA000
1600	PTN94TECO1AA000
2000	PTN95TECO1AA000
2500	PTN96TECO1AA000
3200	PTN97TECO1AA000
4000	PTN98TECO1AA000
5000	PTN99TECO1AA000

## Variants

3P+N+PE (body)	PTN91TECO1AA000
3P+N+FE (bus)+PE (body)	PTN91UECO1AA000

## Busbar fixers

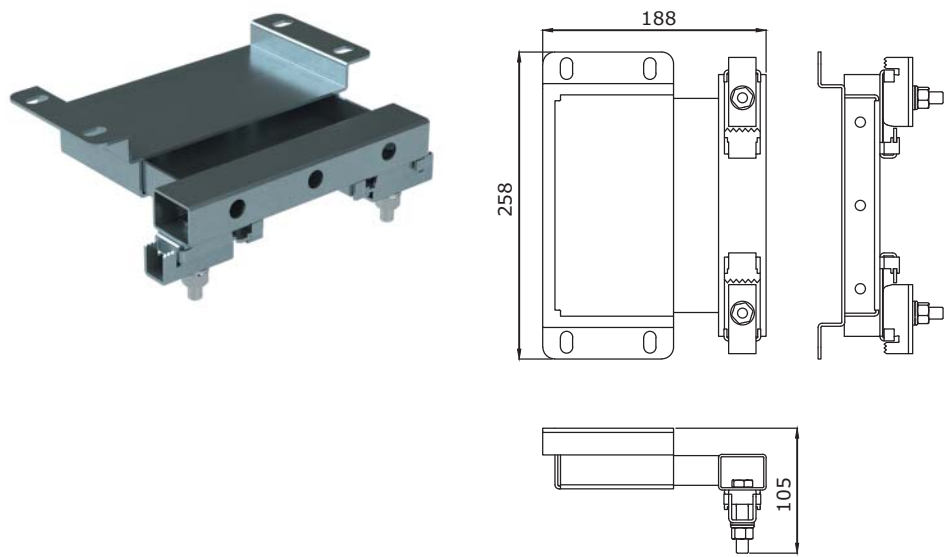


### Purpose:

- fixing of busbar lines.

All-purpose fixer
PTN90ZFIUSAA000

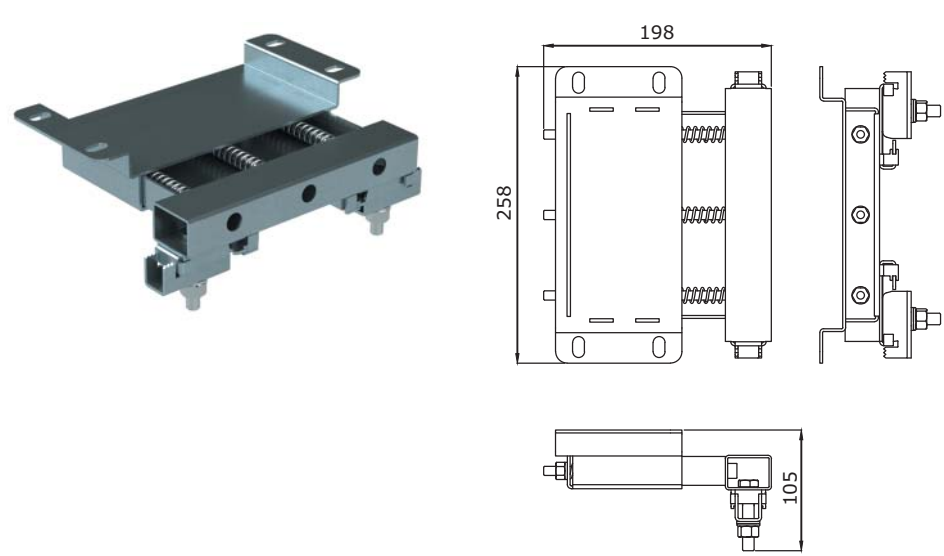
Busbar fixers for vertical lines



**Purpose:**  
• busbar fixing on vertical runs.

Variants	Fixing for vertical lines
3P+N+PE (body)	PTN90ZFVA1AA000
3P+N+FE (bus)+PE (body)	PTN90ZFVA1AA000

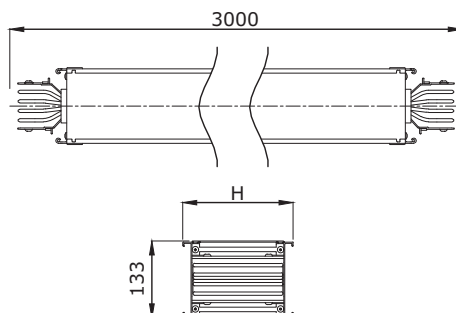
Busbar fixers for vertical lines with springs



**Purpose:**  
• busbar fixing on vertical runs.

Variants	Fixing for vertical lines
3P+N+PE (body)	PTN90ZFVS1AA000
3P+N+FE (bus)+PE (body)	PTN90ZFVS1AA000

## Straight element



### Purpose:

- construction of straight runs of busbar line.

### Characteristics:

- protection class IP55, increase up to IP65 is possible;
- F-class isolation up to 155 °C, halogen-free;
- powder coating RAL 7035, other RAL colors are possible;
- aluminum body as a PE-conductor;
- the length is indicated between the axis of connecting sections;
- the width for five-wire system is 139 mm.

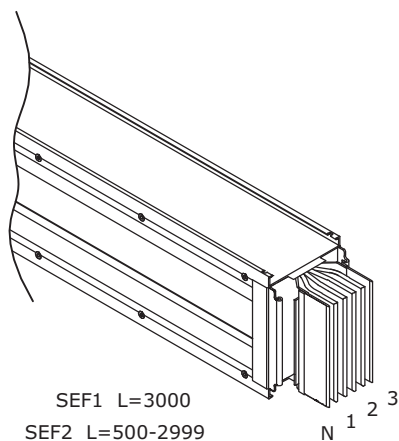
Rated current, A	Body height H, mm	Specific weight of the line, kg/m	Busbar height, mm	Code
800	96,8	9,7	60	PTC08E <b>SEF1</b> AA000
1000	96,8	9,7	60	PTC10E <b>SEF1</b> AA000
1250	116,8	11,7	80	PTC13E <b>SEF1</b> AA000
1600	136,8	13,5	100	PTC16E <b>SEF1</b> AA000
2000	196,8	18,8	160	PTC20E <b>SEF1</b> AA000
2500	236,8	22,3	200	PTC25E <b>SEF1</b> AA000
3200	276,8	26,5	240	PTC32E <b>SEF1</b> AA000
4000	362,3	36,5	2x160	PTC40E <b>SEF1</b> AA000
5000	442,3	43,7	2x200	PTC50E <b>SEF1</b> AA000
6400	522,3	52,0	2x240	PTC64E <b>SEF1</b> AA000

### Coding

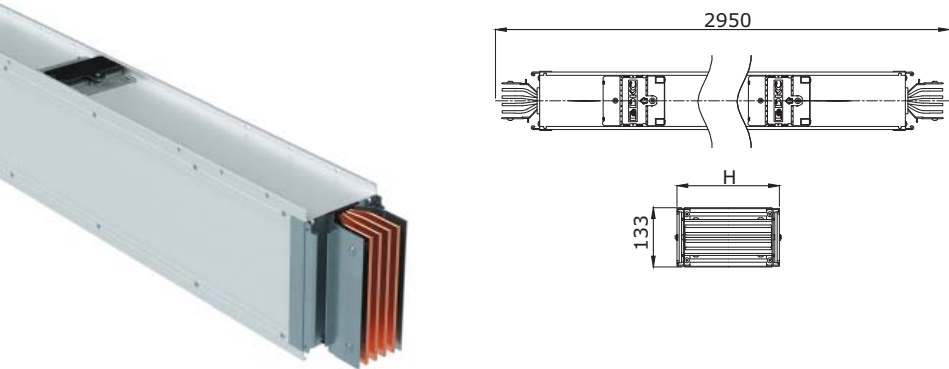
SEF1 = length 3000 mm  
SEF2 = length from 500 to 2999 mm

### Variants

3P+N+PE (body)	PTC08E <b>SEF1</b> AA000
3P+N+FE (bus)+PE (body)	PTC08 <b>G</b> SEF1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08 <b>I</b> SEF1AA000



Straight element with tap off box facilities



- Purpose:**
- power extraction from the busbar.
- Characteristics:**
- the section may be turned upwards, as well as downwards by tapping points;
  - connection and disconnection of the boxes may be carried out without busbar cutting-off from network;
  - the length is indicated between the axes of connecting sections;
  - the distance between tapping points can be changed.

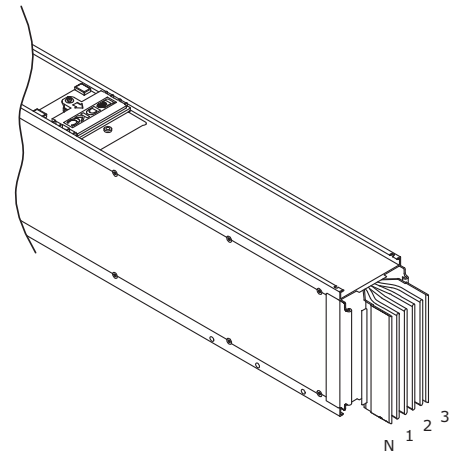
Rated current, A	Body height H, mm	Specific weight of the line, kg/m	Busbar height, mm	Code
800	96,8	9,7	60	PTC08 <b>ESP11</b> AA000
1000	96,8	9,7	60	PTC10 <b>ESP11</b> AA000
1250	116,8	11,7	80	PTC13 <b>ESP11</b> AA000
1600	136,8	13,5	100	PTC16 <b>ESP11</b> AA000
2000	196,8	18,8	160	PTC20 <b>ESP11</b> AA000
2500	236,8	22,3	200	PTC25 <b>ESP11</b> AA000
3200	276,8	26,5	240	PTC32 <b>ESP11</b> AA000
4000	362,3	36,5	2x160	PTC40 <b>ESP11</b> AA000
5000	442,3	43,7	2x200	PTC50 <b>ESP11</b> AA000
6400	522,3	52,0	2x240	PTC64 <b>ESP11</b> AA000

Coding

SP11 = 2950 mm, 3 tapping points from the one side  
SP12 = 500–2950 mm, 3 tapping points from the one side  
SP13 = 500–2950 mm, 2 tapping points from the one side  
SP14 = 500–2950 mm, 1 tapping points from the one side  
SP15 = 500–2950 mm, 4 tapping points from the one side  
SP16 = 2400 mm, 2 tapping points from the one side  
SP21 = 2950 mm, 3 tapping point on both sides  
SP22 = 500–2950 mm, 3 tapping point on both sides  
SP23 = 500–2950 mm, 2 tapping point on both sides  
SP24 = 500–2950 mm, 1 tapping point on both sides  
SP25 = 500–2950 mm, 4 tapping point on both sides

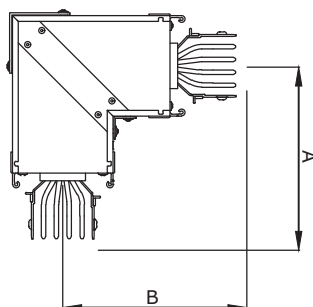
Variants

3P+N+PE (body)	PTC08 <b>ESP11</b> AA000
3P+N+FE (bus)+PE (body)	PTC08 <b>GSP11</b> AA000
3P+N+FE/2 (bus)+PE (body)	PTC08 <b>ISP11</b> AA000





## Horizontal elbow



### Purpose:

- horizontal turn of the line.

### Characteristics:

- suitable for a turn to the left and to the right;
- the length is indicated up to the axis of connecting section.

Rated current, A	A standard, mm	B standard, mm	A max, mm	B max, mm	Code
800	250	250	749	749	PTC08 <b>HEL1</b> AA000
1000	250	250	749	749	PTC10 <b>HEL1</b> AA000
1250	250	250	749	749	PTC13 <b>HEL1</b> AA000
1600	250	250	749	749	PTC16 <b>HEL1</b> AA000
2000	250	250	749	749	PTC20 <b>HEL1</b> AA000
2500	250	250	749	749	PTC25 <b>HEL1</b> AA000
3200	250	250	749	749	PTC32 <b>HEL1</b> AA000
4000	250	250	749	749	PTC40 <b>HEL1</b> AA000
5000	250	250	749	749	PTC50 <b>HEL1</b> AA000
6400	250	250	749	749	PTC64 <b>HEL1</b> AA000

### Coding

HEL1 – type 1, standard dimensions

HEL2 – type 2, standard dimensions

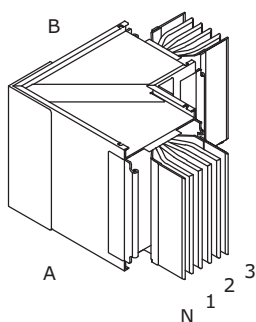
HEL3 – type 1, non-standard dimensions

HEL4 – type 2, non-standard dimensions

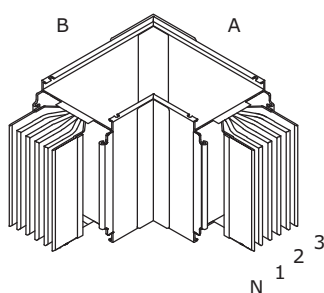
### Variants

3P+N+PE (body)	PTC08 <b>E</b> HEL1AA000
3P+N+FE (bus)+PE (body)	PTC08 <b>G</b> HEL1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08 <b>I</b> HEL1AA000

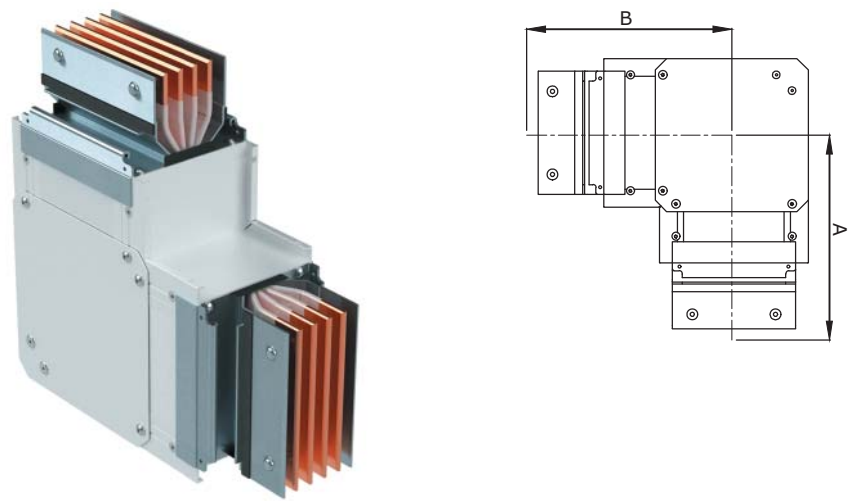
Type 1



Type 2



Vertical elbow



- Purpose:**
- vertical turn of the line.
- Characteristics:**
- suitable for a turn upwards and downwards;
  - the length is indicated up to the axis of connecting section.

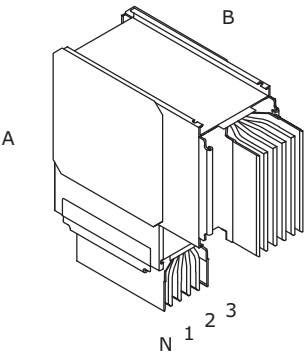
Rated current, A	A standard, mm	B standard, mm	A max, mm	B max, mm	Code
800	230	230	729	729	PTC08EVEL1AA000
1000	230	230	729	729	PTC10EVEL1AA000
1250	240	240	739	739	PTC13EVEL1AA000
1600	250	250	749	749	PTC16EVEL1AA000
2000	280	280	779	779	PTC20EVEL1AA000
2500	300	300	799	799	PTC25EVEL1AA000
3200	320	320	819	819	PTC32EVEL1AA000
4000	370	370	869	869	PTC40EVEL1AA000
5000	410	410	909	909	PTC50EVEL1AA000
6400	450	450	949	949	PTC64EVEL1AA000

**Coding**

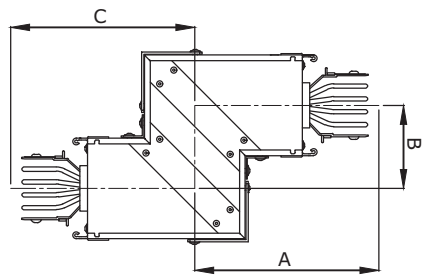
VEL1 – standard dimensions  
VEL3 – non-standard dimensions

Variants

3P+N+PE (body)	PTC08EVEL1AA000
3P+N+FE (bus)+PE (body)	PTC08GVEL1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IVEL1AA000



Double horizontal elbow

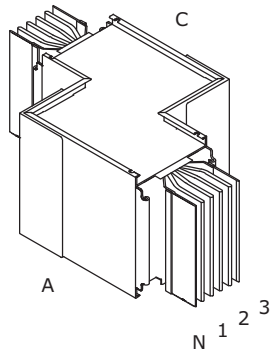


- Purpose:**
- obstacle avoidance in horizontal plane.
- Characteristics:**
- the dimensions are chosen from the given range;
  - the length is indicated up to the axis of connecting section.

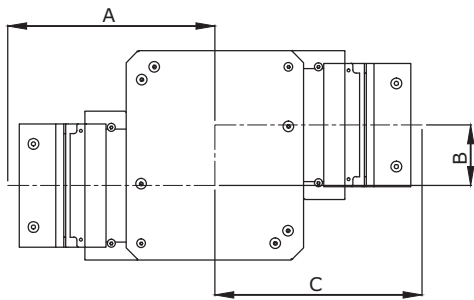
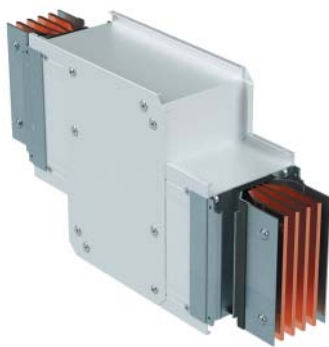
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	250	70	250	749	499	749	PTC08EDHE1AA000
1000	250	70	250	749	499	749	PTC10EDHE1AA000
1250	250	70	250	749	499	749	PTC13EDHE1AA000
1600	250	70	250	749	499	749	PTC16EDHE1AA000
2000	250	70	250	749	499	749	PTC20EDHE1AA000
2500	250	70	250	749	499	749	PTC25EDHE1AA000
3200	250	70	250	749	499	749	PTC32EDHE1AA000
4000	250	70	250	749	499	749	PTC40EDHE1AA000
5000	250	70	250	749	499	749	PTC50EDHE1AA000
6400	250	70	250	749	499	749	PTC64EDHE1AA000

Variants

3P+N+PE (body)	PTC08EDHE1AA000
3P+N+FE (bus)+PE (body)	PTC08GDHE1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IDHE1AA000



Double vertical elbow



- Purpose:**
- obstacle avoidance in vertical plane.
- Characteristics:**
- the dimensions are chosen from the given range;
  - the length is indicated up to the axis of connecting section.

Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	230	80	230	729	459	729	PTC08EDVE1AA000
1000	230	80	230	729	459	729	PTC10EDVE1AA000
1250	240	80	240	739	479	739	PTC13EDVE1AA000
1600	250	80	250	749	499	749	PTC16EDVE1AA000
2000	280	80	280	779	559	779	PTC20EDVE1AA000
2500	300	80	300	799	599	799	PTC25EDVE1AA000
3200	320	80	320	819	639	819	PTC32EDVE1AA000
4000	370	80	370	869	739	869	PTC40EDVE1AA000
5000	410	80	410	909	819	909	PTC50EDVE1AA000
6400	450	80	450	949	899	949	PTC64EDVE1AA000

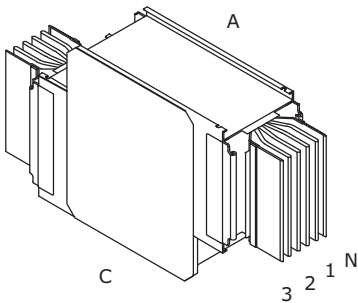
Coding

DVE1 – type 1  
DVE2 – type 2

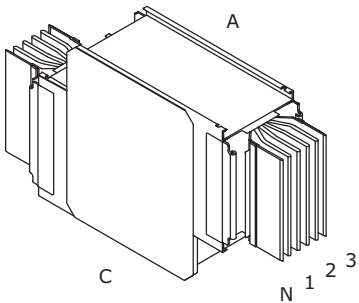
Variants

3P+N+PE (body)	PTC08EDVE1AA000
3P+N+FE (bus)+PE (body)	PTC08GDVE1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IDVE1AA000

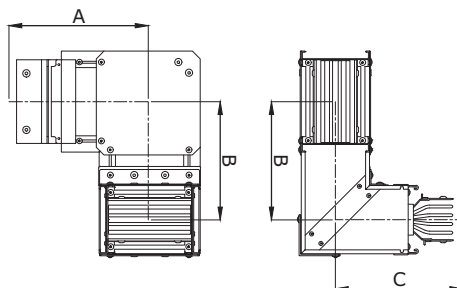
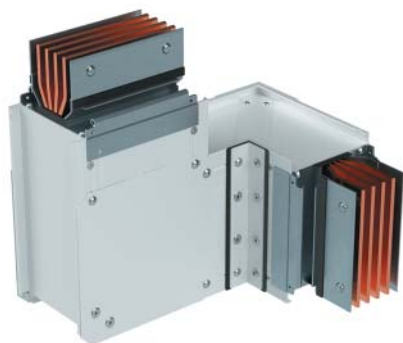
Type 1



Type 2



## Horizontal + vertical elbow



### Purpose:

- turn of the line in both planes.

### Characteristics:

- the dimensions are chosen from the given range;
- the length is indicated up to the axis of connecting section.

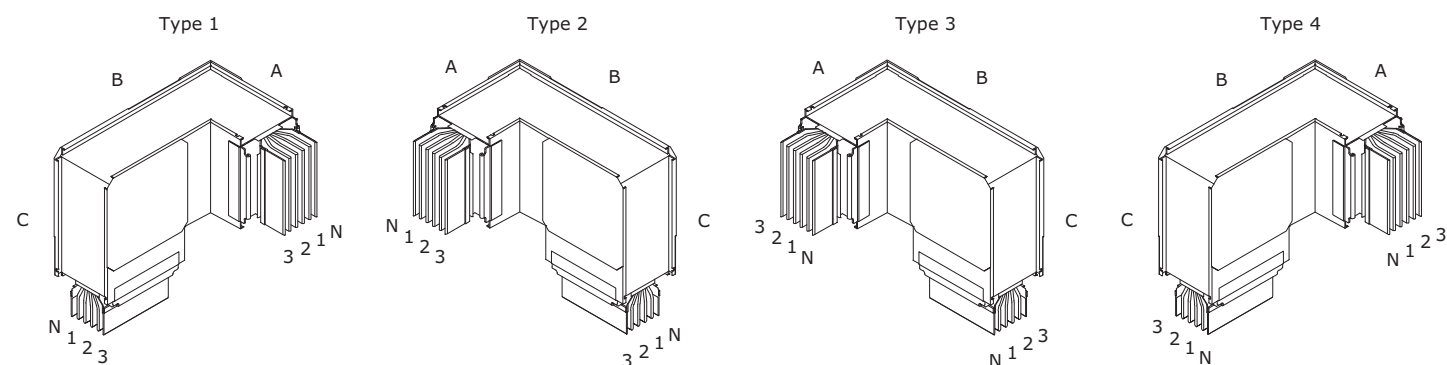
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	250	180	230	749	479	729	PTC08EHVE1AA000
1000	250	180	230	749	479	729	PTC10EHVE1AA000
1250	250	190	240	749	489	739	PTC13EHVE1AA000
1600	250	200	250	749	499	749	PTC16EHVE1AA000
2000	250	230	280	749	429	779	PTC20EHVE1AA000
2500	250	250	300	749	549	799	PTC25EHVE1AA000
3200	250	270	320	749	569	819	PTC32EHVE1AA000
4000	250	315	370	749	619	869	PTC40EHVE1AA000
5000	250	355	410	749	659	909	PTC50EHVE1AA000
6400	250	395	450	749	699	949	PTC64EHVE1AA000

### Coding

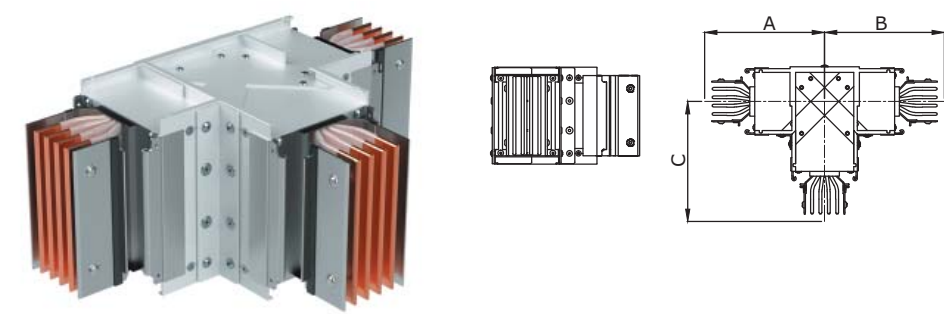
HVE1 – type 1  
HVE2 – type 2  
HVE3 – type 3  
HVE4 – type 4

### Variants

3P+N+PE (body)	PTC08EHVE1AA000
3P+N+FE (bus)+PE (body)	PTC08GHVE1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IHVE1AA000



Horizontal tee



- Purpose:**
- tapping of the line in horizontal plane.
- Characteristics:**
- the dimensions are chosen from the given range;
  - the length is indicated up to the axis of connecting section.

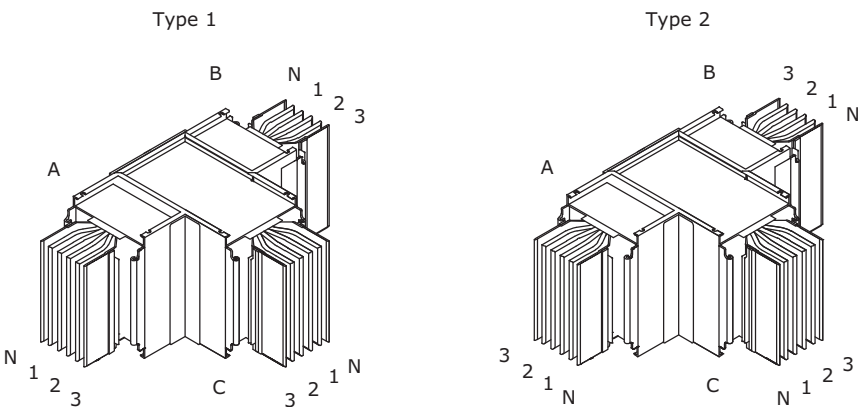
Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	C max, mm	Code
800	500	500	500	999	999	999	PTC08E <b>HTE1</b> AA000
1000	500	500	500	999	999	999	PTC10E <b>HTE1</b> AA000
1250	500	500	500	999	999	999	PTC13E <b>HTE1</b> AA000
1600	500	500	500	999	999	999	PTC16E <b>HTE1</b> AA000
2000	500	500	500	999	999	999	PTC20E <b>HTE1</b> AA000
2500	600	600	600	999	999	999	PTC25E <b>HTE1</b> AA000
3200	600	600	600	999	999	999	PTC32E <b>HTE1</b> AA000
4000	600	600	600	999	999	999	PTC40E <b>HTE1</b> AA000
5000	600	600	600	999	999	999	PTC50E <b>HTE1</b> AA000
6400	600	600	600	999	999	999	PTC64E <b>HTE1</b> AA000

**Coding**

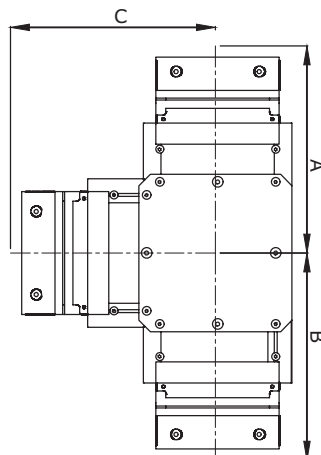
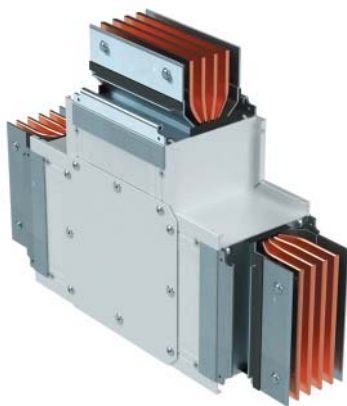
HTE1 – type 1, standard dimensions  
HTE2 – type 2, standard dimensions  
HTE5 – type 1, non-standard dimensions  
HTE6 – type 2, non-standard dimensions

Variants

3P+N+PE (body)	PTC08E <b>HTE1</b> AA000
3P+N+FE (bus)+PE (body)	PTC08G <b>HTE1</b> AA000
3P+N+FE/2 (bus)+PE (body)	PTC08I <b>HTE1</b> AA000



## Vertical tee



### Purpose:

- tapping of the line in vertical plane.

### Characteristics:

- the dimensions are chosen from the given range;
- the length is indicated up to the axis of connecting section.

Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	C max, mm	Code
800	230	230	230	729	729	729	PTC08EVTE1AA000
1000	230	230	230	729	729	729	PTC10EVTE1AA000
1250	240	240	240	739	739	739	PTC13EVTE1AA000
1600	250	250	250	749	749	749	PTC16EVTE1AA000
2000	280	280	280	779	779	779	PTC20EVTE1AA000
2500	300	300	300	799	799	799	PTC25EVTE1AA000
3200	320	320	320	819	819	819	PTC32EVTE1AA000
4000	370	370	370	869	869	869	PTC40EVTE1AA000
5000	410	410	410	909	909	909	PTC50EVTE1AA000
6400	450	450	450	949	949	949	PTC64EVTE1AA000

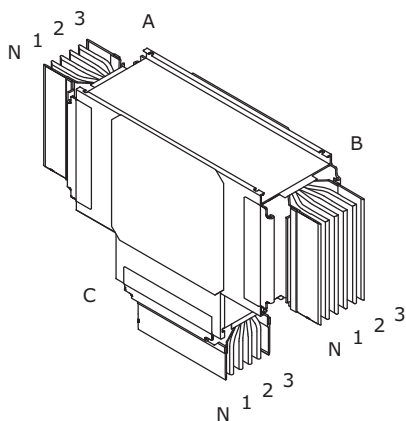
## Coding

VTE1 – standard dimensions

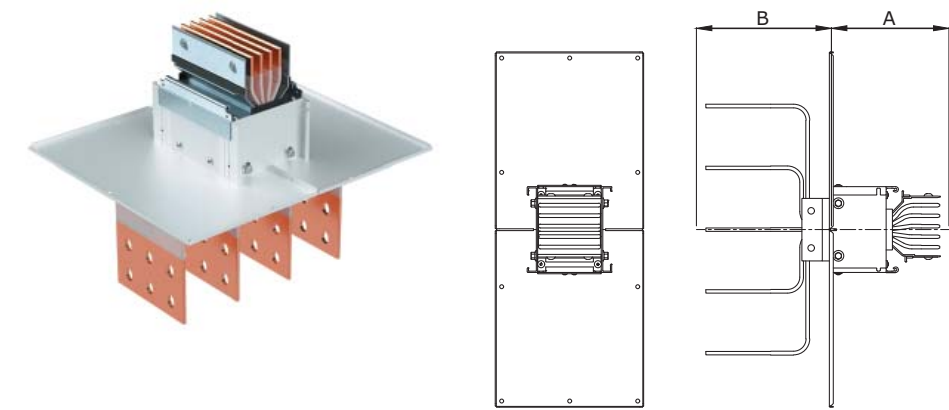
VTE5 – non-standard dimensions

## Variants

3P+N+PE (body)	PTC08EVTE1AA000
3P+N+FE (bus)+PE (body)	PTC08GVTE1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IVTE1AA000



Terminal unit



**Purpose:**

- insertion of the busbar in the enclosure or connection to the oil transformer.

**Characteristics:**

- contact group is made of tinned aluminum;
- lengths are indicated before the axis of the connecting section.

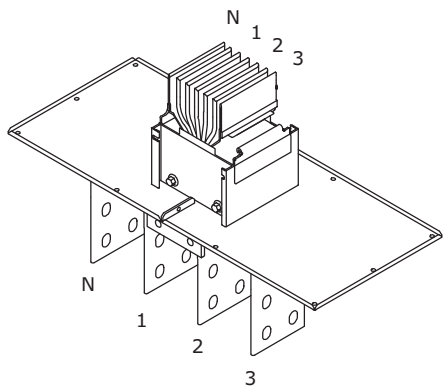
Rated current, A	A standard, mm	B standard, mm	X standard, mm	Y standard, mm	B max, mm	Code
800	200	200	240	455	699	PTC08ETST1AA000
1000	200	200	240	455	699	PTC10ETST1AA000
1250	200	200	240	455	699	PTC13ETST1AA000
1600	200	200	240	455	699	PTC16ETST1AA000
2000	200	200	380	455	699	PTC20ETST1AA000
2500	200	200	380	455	699	PTC25ETST1AA000
3200	200	200	380	455	699	PTC32ETST1AA000
4000	200	200	625	455	699	PTC40ETST1AA000
5000	200	200	625	455	699	PTC50ETST1AA000
6400	200	200	625	455	699	PTC64ETST1AA000

**Coding**

TST1 – standard dimensions  
TST2 – non-standard dimensions

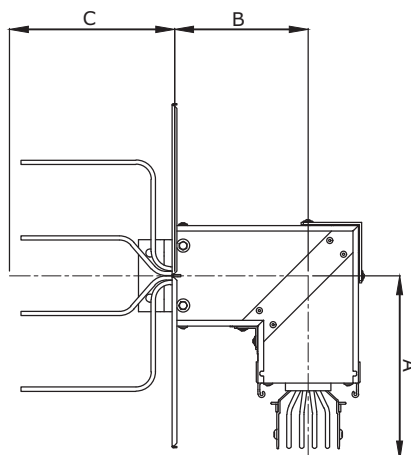
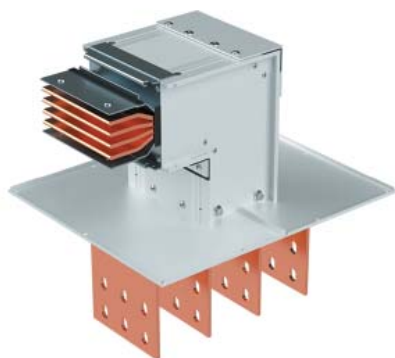
Variants

3P+N+PE (body)	PTC08ETST1AA000
3P+N+FE (bus)+PE (body)	PTC08GTST1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08ITST1AA000





## Horizontal elbow + terminal unit



### Purpose:

- insertion of the busbar in the enclosure or connection to the oil transformer.

### Characteristics:

- contact group is made of tinned aluminum;
- lengths are indicated before the axis of the connecting section.

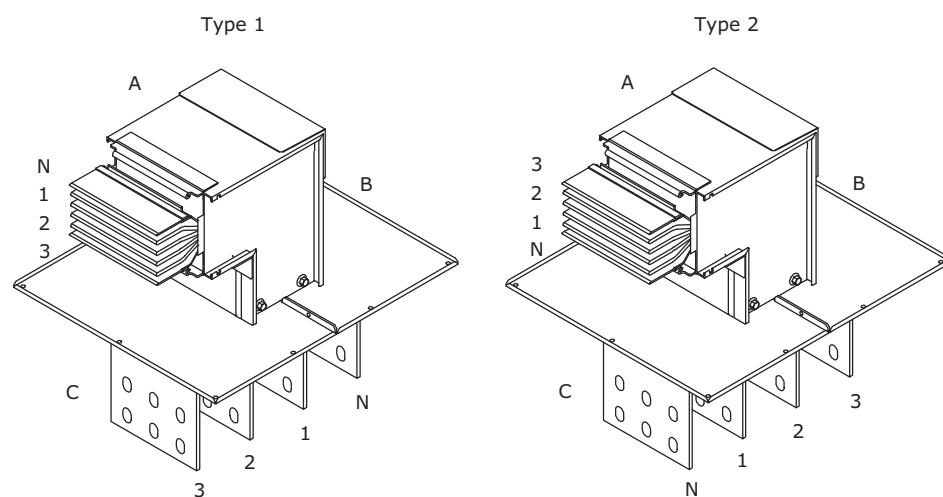
Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	Code
800	250	180	200	749	449	PTC08EHET1AA000
1000	250	180	200	749	449	PTC10EHET1AA000
1250	250	180	200	749	449	PTC13EHET1AA000
1600	250	180	200	749	449	PTC16EHET1AA000
2000	250	180	200	749	449	PTC20EHET1AA000
2500	250	180	200	749	449	PTC25EHET1AA000
3200	250	180	200	749	449	PTC32EHET1AA000
4000	250	180	200	749	449	PTC40EHET1AA000
5000	250	180	200	749	449	PTC50EHET1AA000
6400	250	180	200	749	449	PTC64EHET1AA000

### Coding

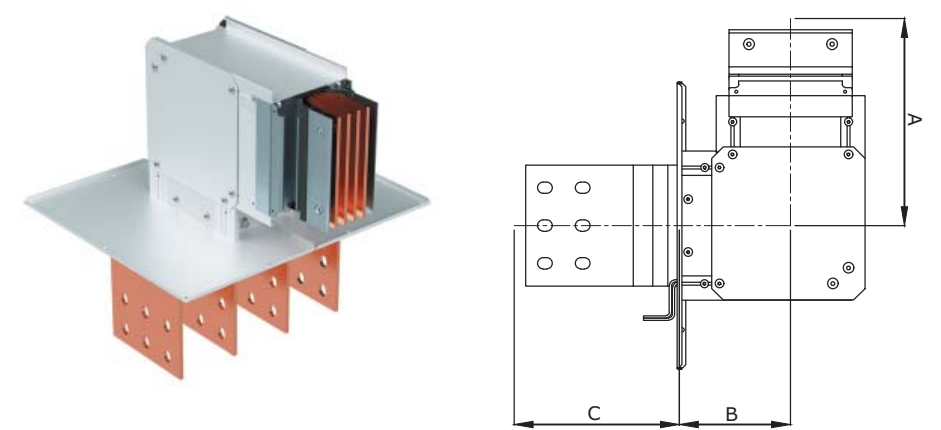
HET1 – type 1, standard dimensions  
HET2 – type 2, standard dimensions  
HET3 – type 1, non-standard dimensions  
HET4 – type 2, non-standard dimensions

### Variants

3P+N+PE (body)	PTC08EHET1AA000
3P+N+FE (bus)+PE (body)	PTC08GHET1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IHET1AA000



Vertical elbow + terminal unit



**Purpose:**

- insertion of the busbar in the enclosure or connection to the oil transformer.

**Characteristics:**

- lengths are indicated before the axis of the connecting section.

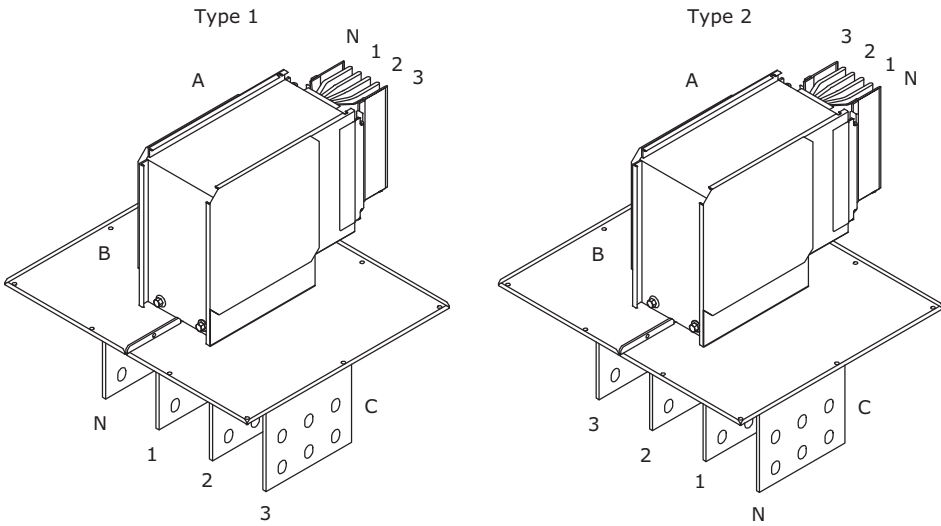
Rated current, A	A standard, mm	B standard, mm	C standard, mm	A max, mm	B max, mm	Code
800	230	100	200	729	429	PTC08E <b>VET1</b> AA000
1000	230	100	200	729	429	PTC10E <b>VET1</b> AA000
1250	240	110	200	739	439	PTC13E <b>VET1</b> AA000
1600	250	120	200	749	449	PTC16E <b>VET1</b> AA000
2000	280	150	200	779	479	PTC20E <b>VET1</b> AA000
2500	300	170	200	799	499	PTC25E <b>VET1</b> AA000
3200	320	190	200	819	519	PTC32E <b>VET1</b> AA000
4000	370	235	200	869	569	PTC40E <b>VET1</b> AA000
5000	410	275	200	909	609	PTC50E <b>VET1</b> AA000
6400	450	315	200	949	649	PTC64E <b>VET1</b> AA000

Coding

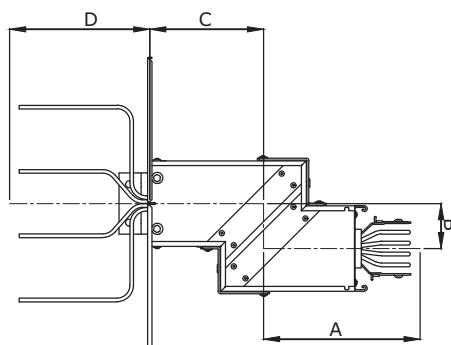
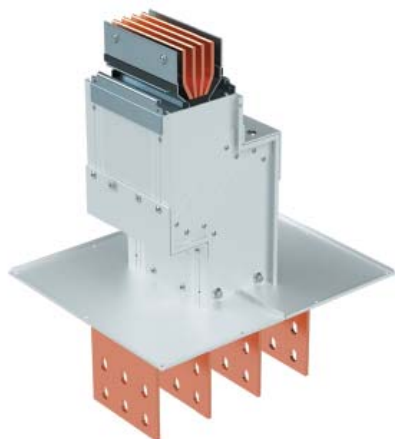
VET1 – type 1, standard dimensions  
VET2 – type 2, standard dimensions  
VET3 – type 1, non-standard dimensions  
VET4 – type 2, non-standard dimensions

Variants

3P+N+PE (body)	PTC08E <b>VET1</b> AA000
3P+N+FE (bus)+PE (body)	PTC08G <b>VET1</b> AA000
3P+N+FE/2 (bus)+PE (body)	PTC08I <b>VET1</b> AA000



## Double horizontal elbow + terminal unit



### Purpose:

- insertion of the busbar in the enclosure or connection to the oil transformer.

### Characteristics:

- lengths are indicated before the axis of the connecting section.

Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	250	70	180	749	499	429	PTC08EDHT1AA000
1000	250	70	180	749	499	429	PTC10EDHT1AA000
1250	250	70	180	749	499	429	PTC13EDHT1AA000
1600	250	70	180	749	499	429	PTC16EDHT1AA000
2000	250	70	180	749	499	429	PTC20EDHT1AA000
2500	250	70	180	749	499	429	PTC25EDHT1AA000
3200	250	70	180	749	499	429	PTC32EDHT1AA000
4000	250	70	180	749	499	429	PTC40EDHT1AA000
5000	250	70	180	749	499	429	PTC50EDHT1AA000
6400	250	70	180	749	499	429	PTC64EDHT1AA000

### Coding

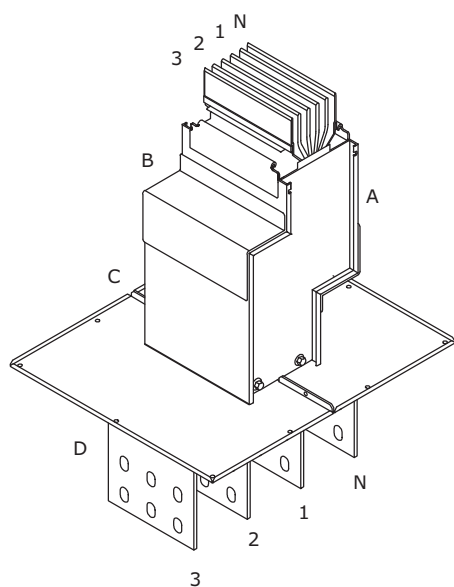
DHT1 – type 1

DHT2 – type 2

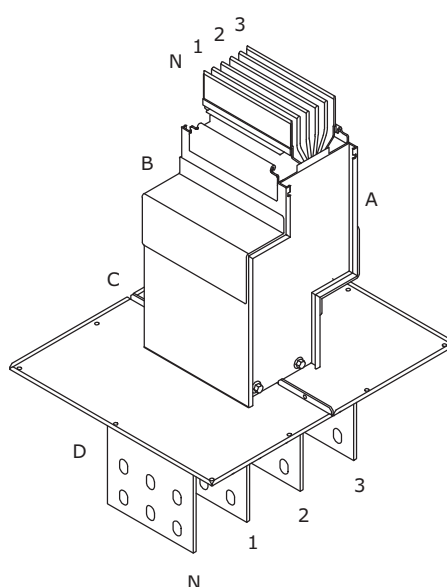
### Variants

3P+N+PE (body)	PTC08EDHT1AA000
3P+N+FE (bus)+PE (body)	PTC08GDHT1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IDHT1AA000

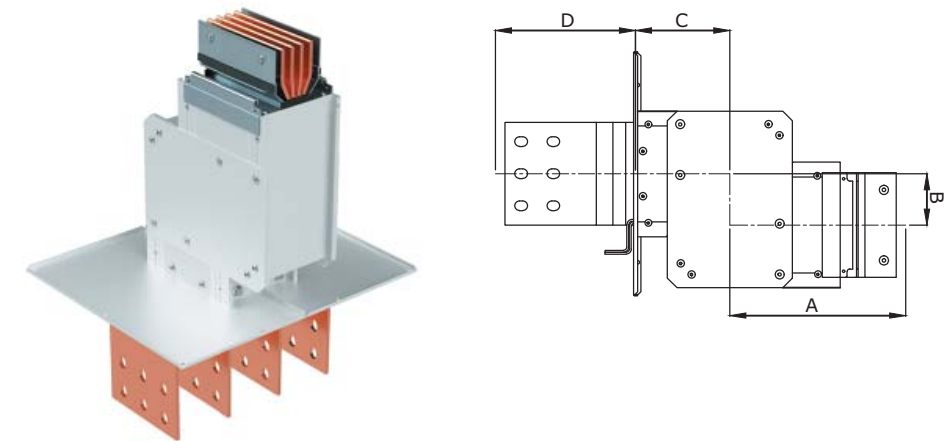
Type 1



Type 2



Double vertical elbow + terminal unit



**Purpose:**

- insertion of the busbar in the enclosure or connection to the oil transformer.

**Characteristics:**

- lengths are indicated before the axis of the connecting section.

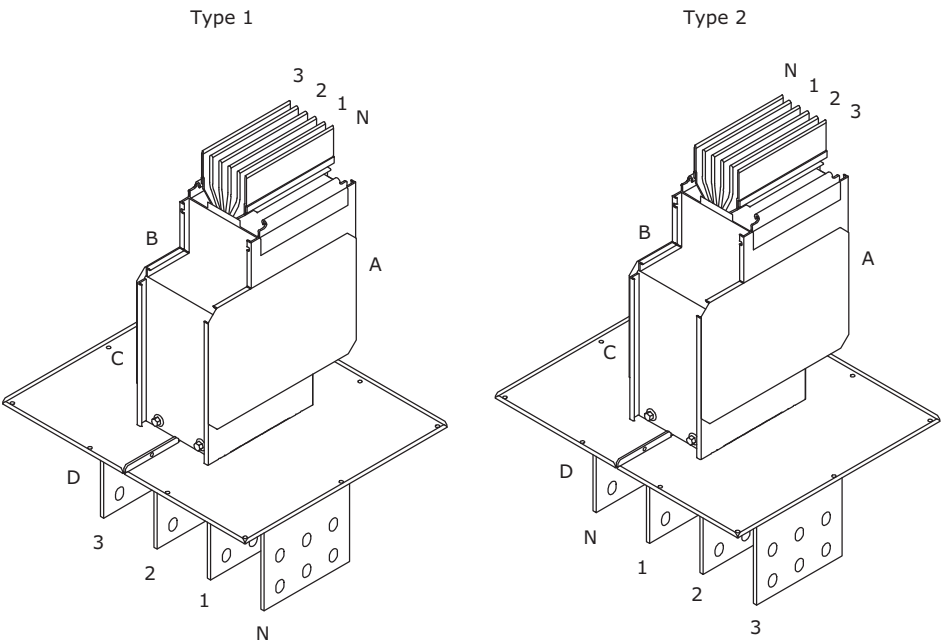
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	230	80	100	729	459	429	PTC08EDVT1AA000
1000	230	80	100	729	459	429	PTC10EDVT1AA000
1250	240	80	110	739	479	439	PTC13EDVT1AA000
1600	250	80	120	749	499	449	PTC16EDVT1AA000
2000	280	80	150	779	559	479	PTC20EDVT1AA000
2500	300	80	170	799	599	499	PTC25EDVT1AA000
3200	320	80	190	819	639	519	PTC32EDVT1AA000
4000	370	80	235	869	739	569	PTC40EDVT1AA000
5000	410	80	275	909	819	609	PTC50EDVT1AA000
6400	450	80	315	949	899	649	PTC64EDVT1AA000

**Coding**

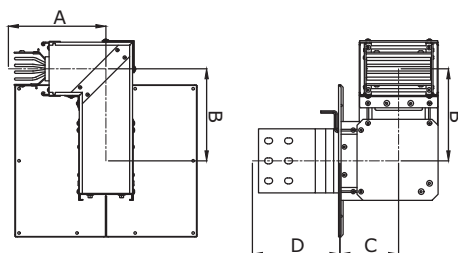
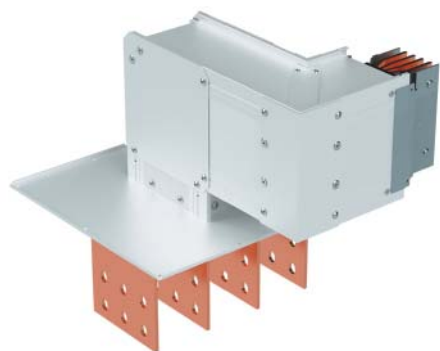
DVT1 – type 1  
DVT2 – type 2

Variants

3P+N+PE (body)	PTC08EDVT1AA000
3P+N+FE (bus)+PE (body)	PTC08GDVT1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IDVT1AA000



## Horizontal elbow + vertical + terminal unit



### Purpose:

- insertion of the busbar in the enclosure or connection to the oil transformer.

### Characteristics:

- lengths are indicated before the axis of the connecting section.

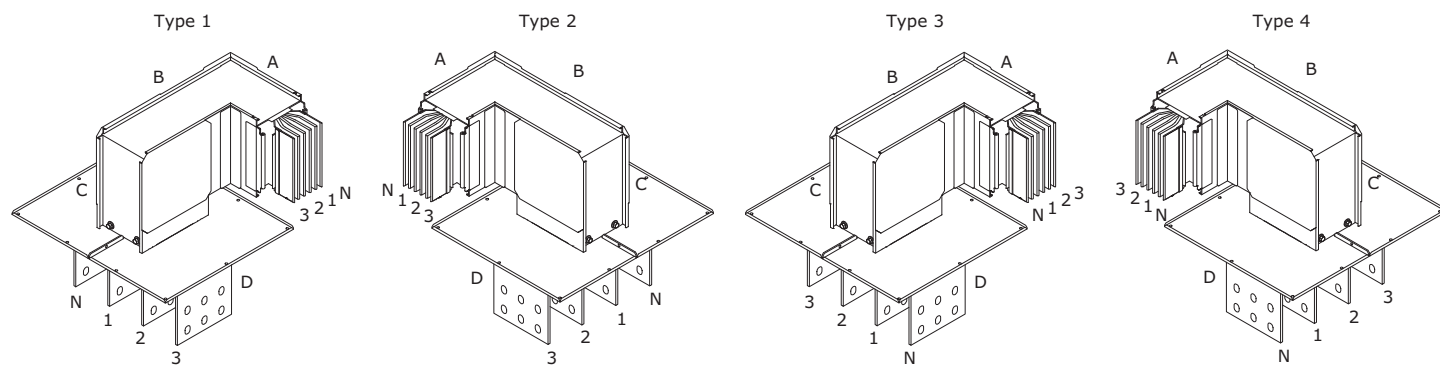
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	250	180	100	749	479	429	PTC08EHVT1AA000
1000	250	180	100	749	479	429	PTC10EHVT1AA000
1250	250	190	110	749	489	439	PTC13EHVT1AA000
1600	250	200	120	749	499	449	PTC16EHVT1AA000
2000	250	230	150	749	429	479	PTC20EHVT1AA000
2500	250	250	170	749	549	499	PTC25EHVT1AA000
3200	250	270	190	749	569	519	PTC32EHVT1AA000
4000	250	315	235	749	619	569	PTC40EHVT1AA000
5000	250	355	275	749	659	609	PTC50EHVT1AA000
6400	250	395	315	749	699	649	PTC64EHVT1AA000

### Coding

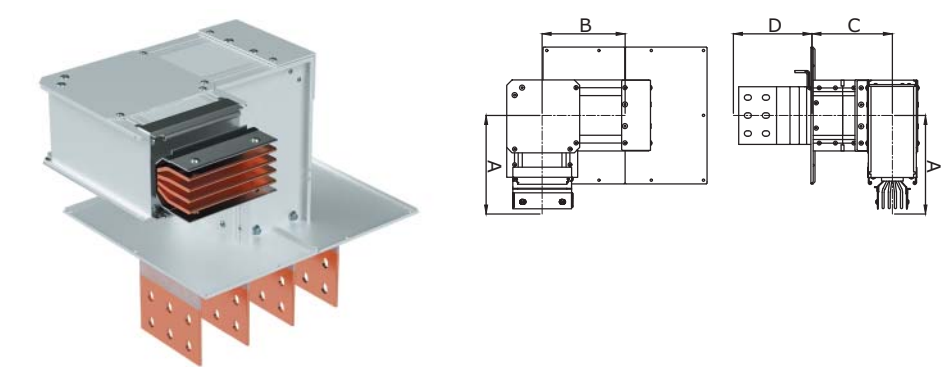
HVT1 – type 1  
HVT2 – type 2  
HVT3 – type 3  
HVT4 – type 4

### Variants

3P+N+PE (body)	PTC08EHVT1AA000
3P+N+FE (bus)+PE (body)	PTC08GHVT1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IHVT1AA000



Vertical elbow + horizontal + terminal unit



**Purpose:**

- insertion of the busbar in the enclosure or connection to the oil transformer.

**Characteristics:**

- lengths are indicated before the axis of the connecting section.

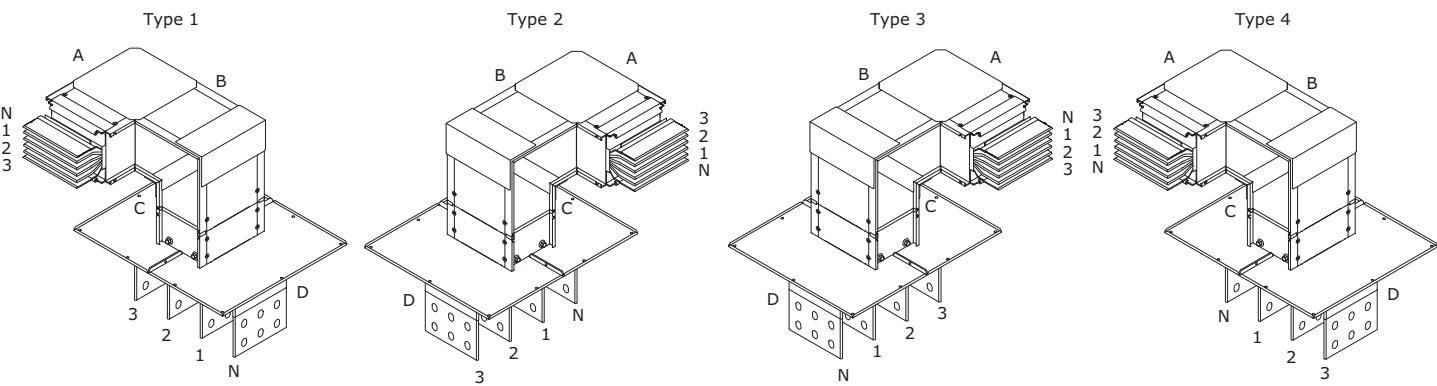
Rated current, A	A min, mm	B min, mm	C min, mm	A max, mm	B max, mm	C max, mm	Code
800	250	180	100	749	479	429	PTC08 <b>EVHT1</b> AA000
1000	250	180	100	749	479	429	PTC10 <b>EVHT1</b> AA000
1250	250	190	110	749	489	439	PTC13 <b>EVHT1</b> AA000
1600	250	200	120	749	499	449	PTC16 <b>EVHT1</b> AA000
2000	250	230	150	749	429	479	PTC20 <b>EVHT1</b> AA000
2500	250	250	170	749	549	499	PTC25 <b>EVHT1</b> AA000
3200	250	270	190	749	569	519	PTC32 <b>EVHT1</b> AA000
4000	250	315	235	749	619	569	PTC40 <b>EVHT1</b> AA000
5000	250	355	275	749	659	609	PTC50 <b>EVHT1</b> AA000
6400	250	395	315	749	699	649	PTC64 <b>EVHT1</b> AA000

Coding

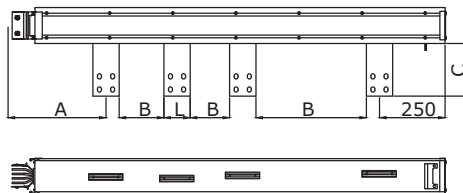
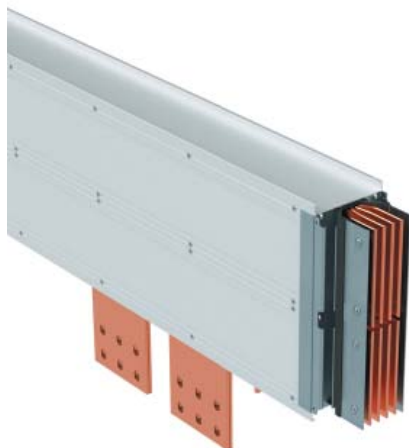
VHT1 – type 1  
VHT2 – type 2  
VHT3 – type 3  
VHT4 – type 4

Variants

3P+N+PE (body)	PTC08 <b>EVHT1</b> AA000
3P+N+FE (bus)+PE (body)	PTC08 <b>GVHT1</b> AA000
3P+N+FE/2 (bus)+PE (body)	PTC08 <b>IVHT1</b> AA000



## Terminal with parallel phases



### Purpose:

- connection of the busbar to the dry transformer.

### Characteristics:

- interphase distances are made for specific mounting dimensions of the transformer;
- phase order is selected for a specific transformer;
- ratings of 4000–6400 A have two joining contacts arranged in parallel.

Rated current, A	A min, mm	B min, mm	C min, mm	L standard, mm	Code
800	450	40	150	60	PTC08ETPP1AA000
1000	450	40	150	60	PTC10ETPP1AA000
1250	450	40	150	80	PTC13ETPP1AA000
1600	450	40	150	100	PTC16ETPP1AA000
2000	450	40	150	160	PTC20ETPP1AA000
2500	450	40	150	200	PTC25ETPP1AA000
3200	450	40	150	240	PTC32ETPP1AA000
4000	450	40	150	160	PTC40ETPP1AA000
5000	450	40	150	200	PTC50ETPP1AA000
6400	450	40	150	240	PTC64ETPP1AA000

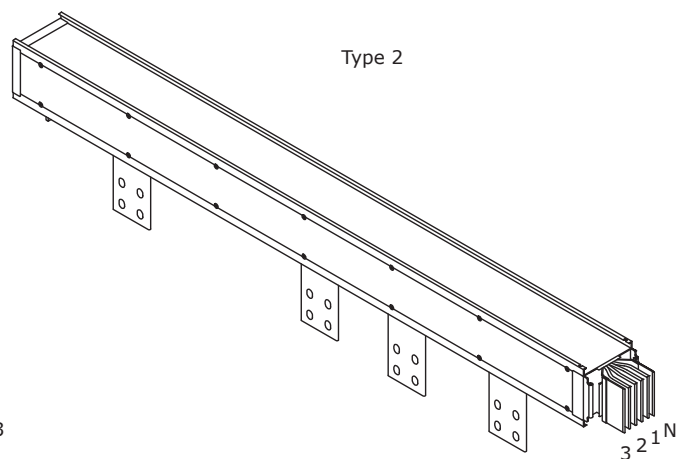
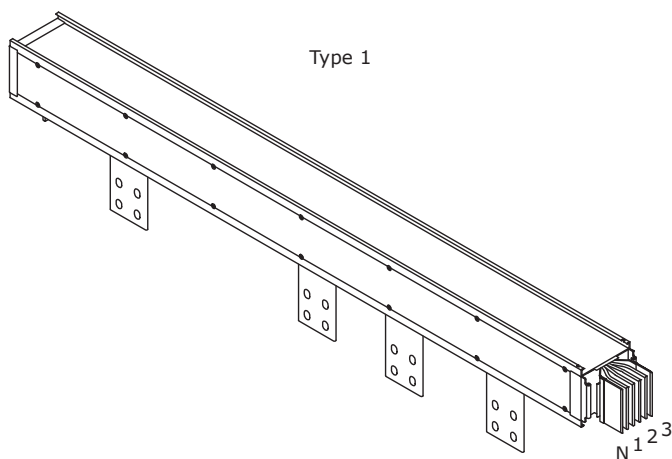
### Coding

TPP1 – type 1

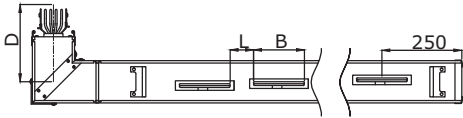
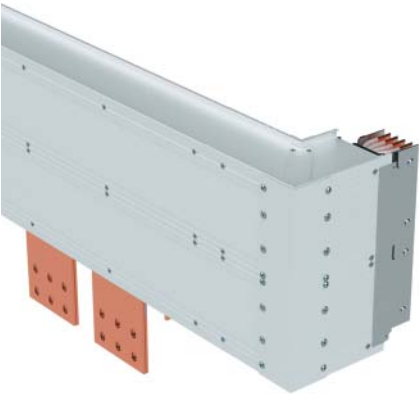
TPP2 – type 2

### Variants

3P+N+PE (body)	PTC08ETPP1AA000
3P+N+FE (bus)+PE (body)	PTC08GTPP1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08ITPP1AA000



Terminal with parallel phases with horizontal elbow



- Purpose:**
- connection of the busbar to the dry transformer.
- Characteristics:**
- interphase distances are made for specific mounting dimensions of the transformer;
  - phase order is selected for a specific transformer;
  - ratings of 4000–6400 A have two joining contacts arranged in parallel.

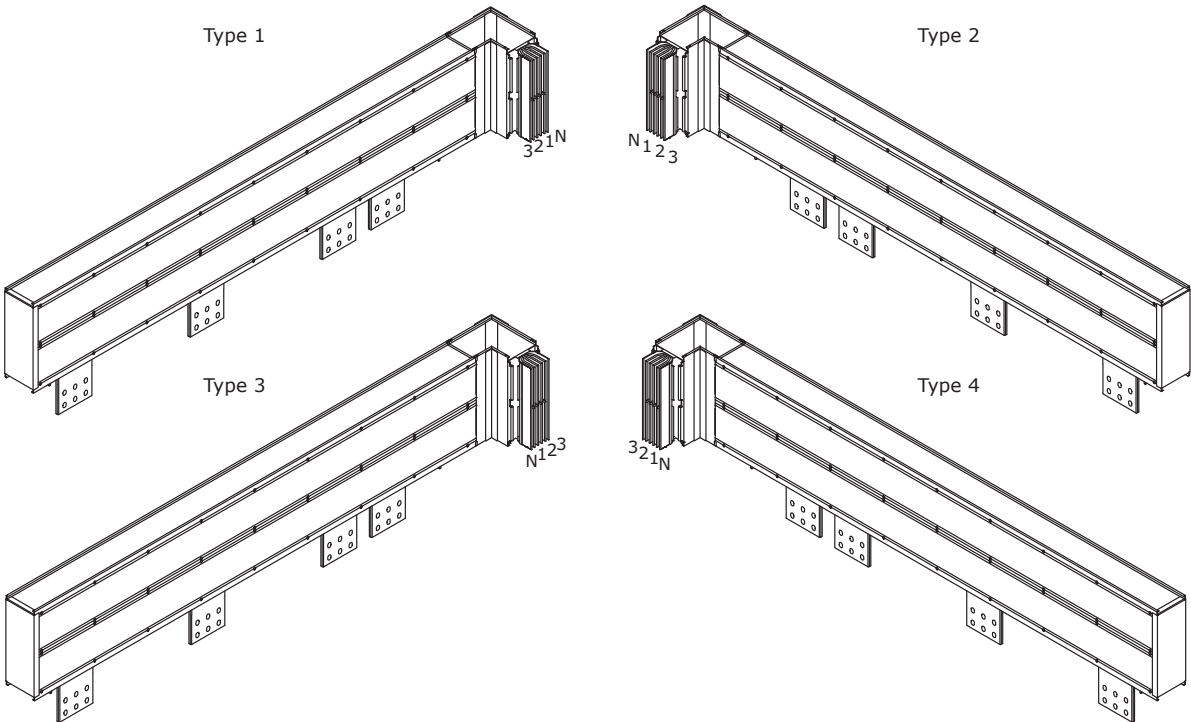
Rated current, A	A min, mm	B min, mm	C min, mm	L standard, mm	D standard, mm	Code
800	450	40	150	60	250	PTC08EHTP1AA000
1000	450	40	150	60	250	PTC10EHTP1AA000
1250	450	40	150	80	250	PTC13EHTP1AA000
1600	450	40	150	100	250	PTC16EHTP1AA000
2000	450	40	150	160	250	PTC20EHTP1AA000
2500	450	40	150	200	250	PTC25EHTP1AA000
3200	450	40	150	240	250	PTC32EHTP1AA000
4000	450	40	150	160	250	PTC40EHTP1AA000
5000	450	40	150	200	250	PTC50EHTP1AA000
6400	450	40	150	240	250	PTC64EHTP1AA000

**Coding**

HTP1 – type 1  
HTP2 – type 2  
HTP3 – type 3  
HTP4 – type 4

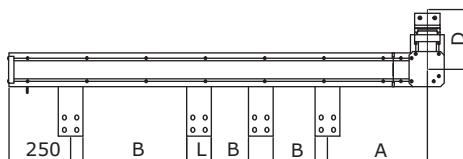
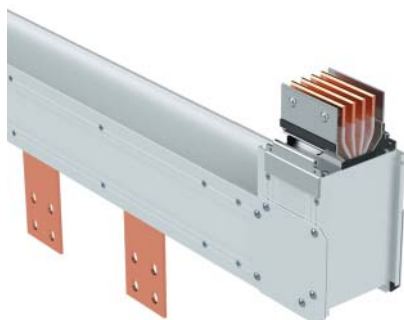
**Variants**

3P+N+PE (body)	PTC08EHTP1AA000
3P+N+FE (bus)+PE (body)	PTC08GHTP1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IHTP1AA000





## Terminal with parallel phases with vertical elbow



### Purpose:

- connection of the busbar to the dry transformer.

### Characteristics:

- interphase distances are made for specific mounting dimensions of the transformer;
- phase order is selected for a specific transformer;
- ratings of 4000–6400 A have two joining contacts arranged in parallel.

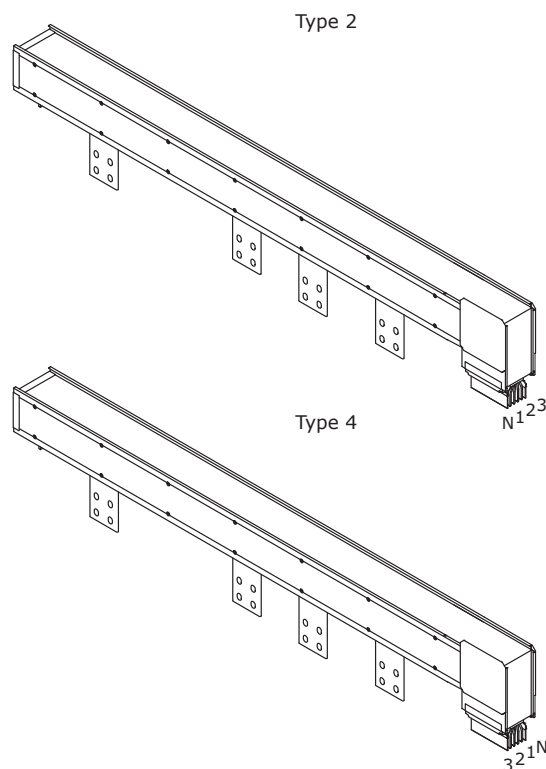
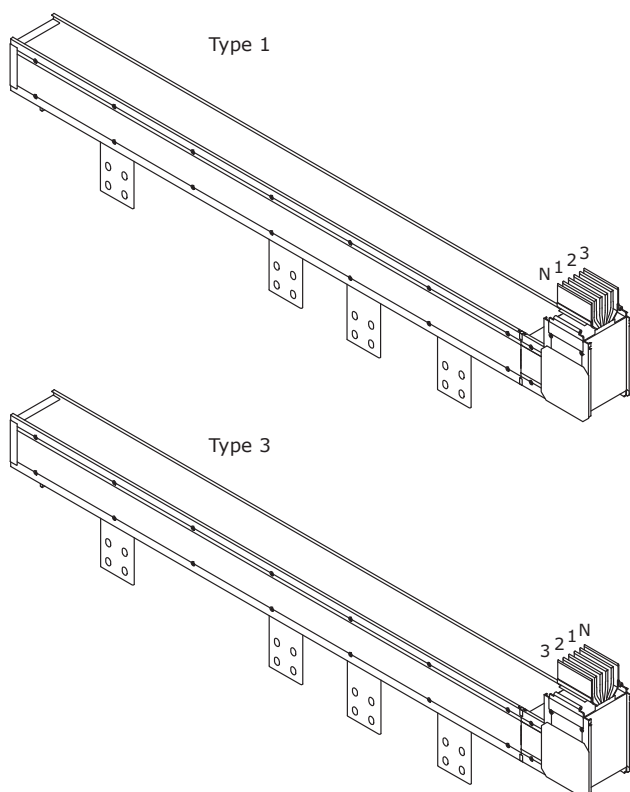
Rated current, A	A min, mm	B min, mm	C min, mm	L standard, mm	D standard, mm	Code
800	450	40	150	60	230	PTC08EVTP1AA000
1000	450	40	150	60	230	PTC10EVTP1AA000
1250	450	40	150	80	240	PTC13EVTP1AA000
1600	450	40	150	100	250	PTC16EVTP1AA000
2000	450	40	150	160	280	PTC20EVTP1AA000
2500	450	40	150	200	300	PTC25EVTP1AA000
3200	450	40	150	240	320	PTC32EVTP1AA000
4000	450	40	150	160	370	PTC40EVTP1AA000
5000	450	40	150	200	410	PTC50EVTP1AA000
6400	450	40	150	240	450	PTC64EVTP1AA000

### Coding

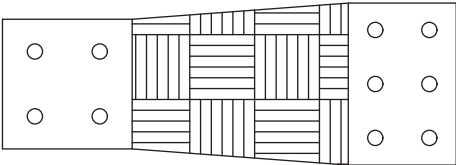
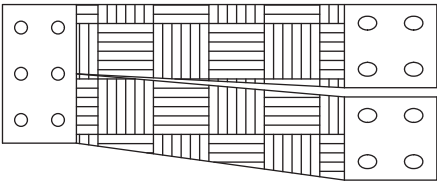
VTP1 – type 1  
VTP2 – type 2  
VTP3 – type 3  
VTP4 – type 4

### Variants

3P+N+PE (body)	PTC08EVTP1AA000
3P+N+FE (bus)+PE (body)	PTC08GVTP1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IVTP1AA000



Set of flexible busbars



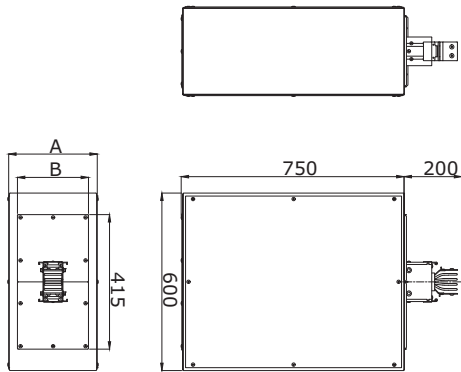
- Purpose:**
- connection of the busbar to the transformer.
- Characteristics:**
- they are made for specific dimensions of the transformer contact group;
  - the kit may include from 4 to 16 buses.

Rated current, A	Code
800	PTC08EFLXJAA000
1000	PTC10EFLXJAA000
1250	PTC13EFLXJAA000
1600	PTC16EFLXJAA000
2000	PTC20EFLXJAA000
2500	PTC25EFLXJAA000
3200	PTC32EFLXJAA000
4000	PTC40EFLXJAA000
5000	PTC50EFLXJAA000
6400	PTC64EFLXJAA000

Variants

3P+N+PE (body)	PTC08EFLXJAA000
3P+N+FE (bus)+PE (body)	PTC08GFLXJAA000
3P+N+FE/2 (bus)+PE (body)	PTC08IFLXJAA000

End feeder



- Purpose:**
- connection of the busbar to the cable line.
- Characteristics:**
- side and bottom walls are removable.

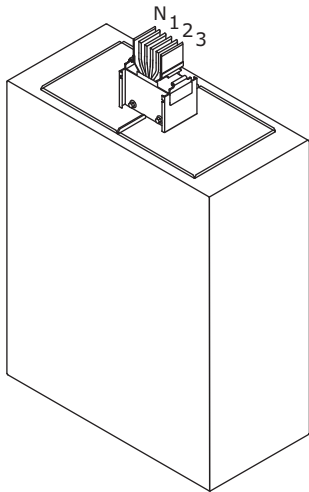
Rated current, A	A standard, mm	B standard, mm	C standard, mm	D standard, mm	Code
800	300	200	415	200	PTC08EFED1AA000
1000	300	200	415	200	PTC10EFED1AA000
1250	300	200	415	200	PTC13EFED1AA000
1600	300	200	415	200	PTC16EFED1AA000
2000	450	340	415	200	PTC20EFED1AA000
2500	450	340	415	200	PTC25EFED1AA000
3200	450	340	415	200	PTC32EFED1AA000
4000	700	585	415	200	PTC40EFED1AA000
5000	700	585	415	200	PTC50EFED1AA000
6400	700	585	415	200	PTC64EFED1AA000

Coding

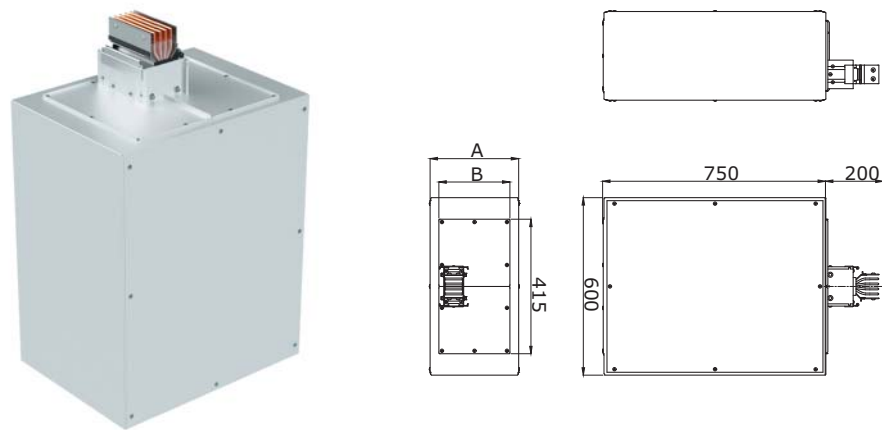
FED1 – standard dimensions  
FED2 – non-standard dimensions

Variants

3P+N+PE (body)	PTC08EFED1AA000
3P+N+FE (bus)+PE (body)	PTC08GFED1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IFED1A000



End feeder for vertical runs



**Purpose:**

- connection of the busbar of vertical arrangement to the cable line.

**Characteristics:**

- side and bottom walls are removable.

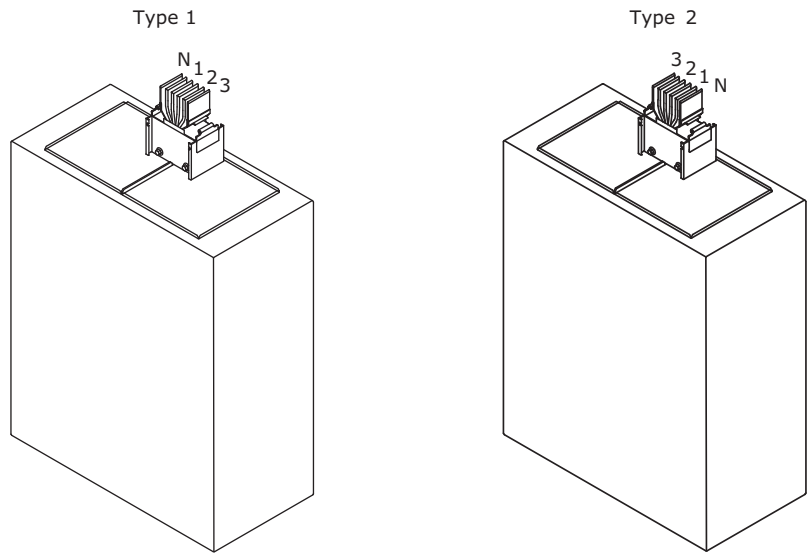
Rated current, A	A standard, mm	B standard, mm	C standard, mm	D standard, mm	E standard, mm	Code
800	300	200	415	200	100	PTC08EFVR1AA000
1000	300	200	415	200	100	PTC10EFVR1AA000
1250	300	200	415	200	100	PTC13EFVR1AA000
1600	300	200	415	200	100	PTC16EFVR1AA000
2000	450	340	415	200	100	PTC20EFVR1AA000
2500	450	340	415	200	100	PTC25EFVR1AA000
3200	450	340	415	200	100	PTC32EFVR1AA000
4000	700	585	415	200	100	PTC40EFVR1AA000
5000	700	585	415	200	100	PTC50EFVR1AA000
6400	700	585	415	200	100	PTC64EFVR1AA000

Coding

FVR1 – type 1, standard dimensions  
FVR2 – type 2, standard dimensions  
FVR3 – type 1, non-standard dimensions  
FVR4 – type 1, non-standard dimensions

Variants

3P+N+PE (body)	PTC08EFVR1AA000
3P+N+FE (bus)+PE (body)	PTC08GFVR1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08IFVR1A000



## Section of phase transposition



### Purpose:

- change of phase sequence.

Rated current, A	Code
800	PTC08E <b>SPT1</b> AA000
1000	PTC10E <b>SPT1</b> AA000
1250	PTC13E <b>SPT1</b> AA000
1600	PTC16E <b>SPT1</b> AA000
2000	PTC20E <b>SPT1</b> AA000
2500	PTC25E <b>SPT1</b> AA000
3200	PTC32E <b>SPT1</b> AA000
4000	PTC40E <b>SPT1</b> AA000
5000	PTC50E <b>SPT1</b> AA000
6400	PTC64E <b>SPT1</b> AA000

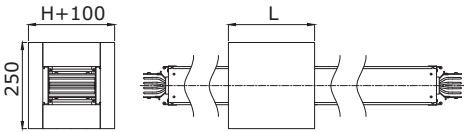
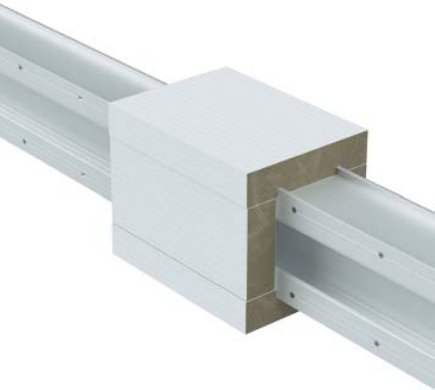
### Coding

SPT1 – type 1, standard dimensions  
SPT2 – type 2, standard dimensions  
SPT3 – type 3, non-standard dimensions  
SPTS – special variants

### Variants

3P+N+PE (body)	PTC08E <b>SPT1</b> AA000
3P+N+FE (bus)+PE (body)	PTC08 <b>G</b> SPT1AA000
3P+N+FE/2 (bus)+PE (body)	PTC08 <b>I</b> SPT1A000

Fire-resistant passage



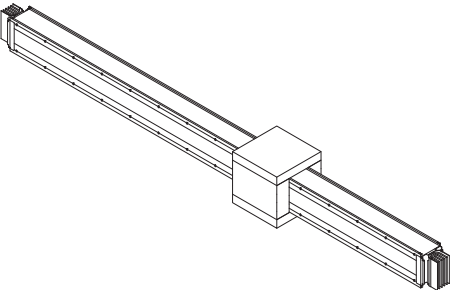
**Purpose:**

- passage of the busbar through floor slabs and walls with rated fire endurance.

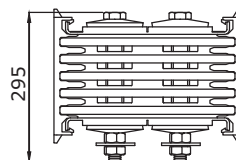
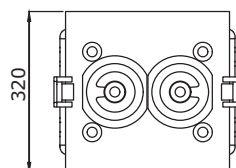
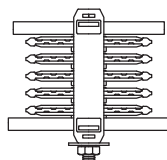
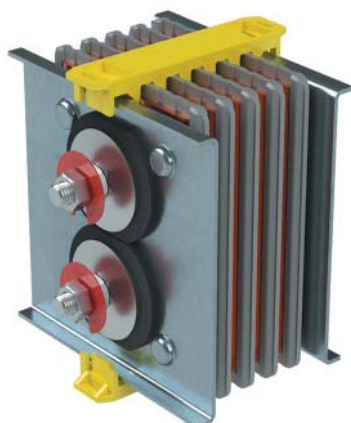
**Characteristics:**

- is assembled from the materials of the fire-resistant barriers group according to the instruction

Rated current, A	120 minutes (depth 500 mm)			180 minutes (depth 1000 mm)		
	DP1201	DT1201	DS1201	DP1201	DT1201	DS1201
800	1 pieces	1 m	2 kg	2 pieces	2 m	3 kg
1000	1 pieces	1 m	2 kg	2 pieces	2 m	3 kg
1250	1 pieces	2 m	2 kg	2 pieces	3 m	3 kg
1600	1 pieces	2 m	2 kg	2 pieces	4 m	3 kg
2000	1 pieces	3 m	3 kg	2 pieces	5 m	4 kg
2500	1 pieces	4 m	3 kg	2 pieces	7 m	4 kg
3200	1 pieces	4 m	3 kg	2 pieces	8 m	4 kg
4000	2 pieces	5 m	3 kg	3 pieces	10 m	5 kg
5000	2 pieces	7 m	3 kg	3 pieces	14 m	5 kg
6400	2 pieces	8 m	3 kg	3 pieces	16 m	5 kg



## Connencting section



### Purpose:

- connecting of the busbar sections with each other.

### Characteristics:

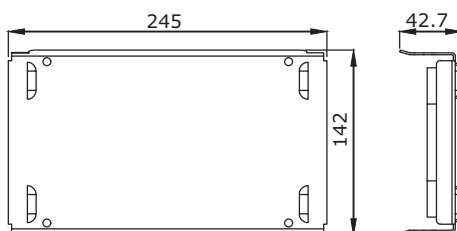
- additional gutters for heat extraction in separating delimiters;
- breakaway nut for easy mounting;
- compensation of thermal expansion of buses.

Rated current, A	Code
800	PTN91 <b>E</b> MON1AA000
1000	PTN91 <b>E</b> MON1AA000
1250	PTN92 <b>E</b> MON1AA000
1600	PTN93 <b>E</b> MON1AA000
2000	PTN94 <b>E</b> MON1AA000
2500	PTN95 <b>E</b> MON1AA000
3200	PTN96 <b>E</b> MON1AA000
4000	PTN97 <b>E</b> MON1AA000
5000	PTN98 <b>E</b> MON1AA000
6400	PTN99 <b>E</b> MON1AA000

## Variants

3P+N+PE (body)	PTN91 <b>E</b> MON1AA000
3P+N+FE (bus) + PE (body)	PTN91 <b>G</b> MON1AA000
3P+N+FE/2 (bus) + PE (body)	PTN91 <b>I</b> MON1AA000
3P+FE (bus) + PE (body)	PTN91 <b>D</b> MON1AA000
3P+2N+PE (body)	PTN91 <b>H</b> MON1AA000

## Cover of the connection



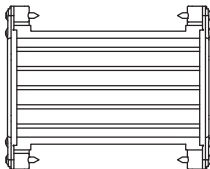
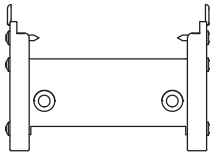
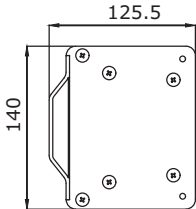
### Purpose:

- connecting of the busbar sections with each other.



Rated current, A	3P+N+PE (body)	3P+N+FE (bus)+PE (body)	3P+N+FE/2 (bus)+PE (body)
800-6400	PTN90TJCO1AA000	PTN90UJCO1AA000	PTN90UJCO1AA000

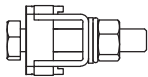
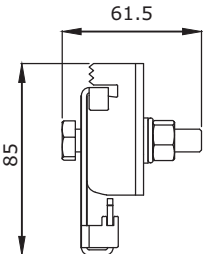
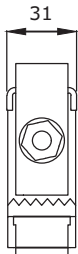
End plug



**Purpose:**  
• cover for the ending of the busbar line.

Rated current, A	Code
800	PTN91TECO1AA000
1000	PTN91TECO1AA000
1250	PTN92TECO1AA000
1600	PTN93TECO1AA000
2000	PTN94TECO1AA000
2500	PTN95TECO1AA000
3200	PTN96TECO1AA000
4000	PTN97TECO1AA000
5000	PTN98TECO1AA000
6400	PTN99TECO1AA000

Busbar fixers

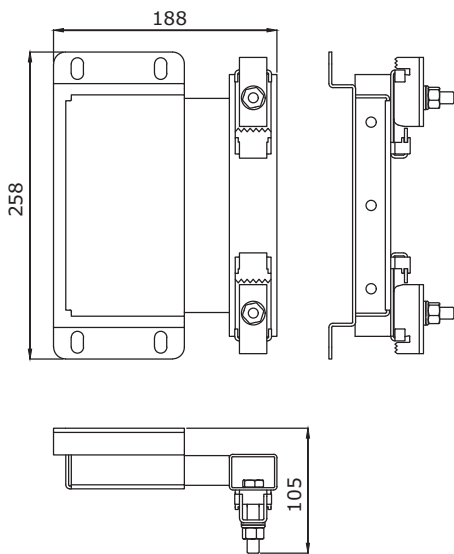


**Purpose:**  
• fixing of the busbar lines.

Rated current, A	Universal fixer
3P+N+PE (body)	PTN90ZFIUSAA000
3P+N+FE (bus)+PE (body)	PTN90ZFIUSAA000



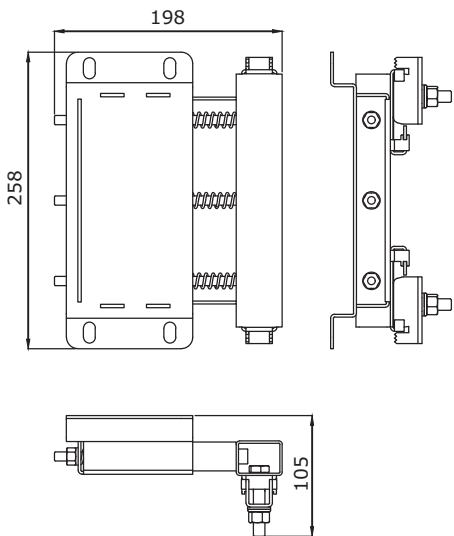
Busbar fixers for vertical lines



**Purpose:**  
• fixing of the busbar on vertical sections (areas).

Variants	Fixing for vertical lines
3P+N+PE (body)	PTN90ZFVA1AA000
3P+N+FE (bus)+PE (body)	PTN90ZFVA1AA000

Busbar fixers for vertical lines with springs



**Purpose:**  
• fastening of the busbar on vertical sections (areas).

Variants	Fixing for vertical lines
3P+N+PE (body)	PTN90ZFVS1AA000
3P+N+FE (bus)+PE (body)	PTN90ZFVS1AA000

## Hollow power tap-off box

**Purpose:**

- connecting of consumers to the points of the busbar power take off.

**Characteristics:**

- the box is furnished with the mounting plate.

Rated current, A	A, mm	B, mm	C, mm	Code
32	400	280	170	PTN90ETCE1AA000
63-160	500	320	210	PTN90ETCE2AA000
250	600	400	250	PTN90ETCE3AA000
315-630	700	500	300	PTN90ETCE4AA000

**Variants**

3P+N+PE (on the busbar body)	PTN90 <b>ET</b> CE2AA000
3P+NP+PE (on the busbar body)	PTN90 <b>OT</b> CE2AA000
3P+N+FE (bus)+PE (on the busbar body)	PTN90 <b>GT</b> CE2AA000
3P+NP+FE (bus)+PE (on the busbar body)	PTN90 <b>VT</b> CE2AA000

## Power tap-off box for modular equipment

**Purpose:**

- connecting of consumers to the points of the busbar power take off.

**Characteristics:**

- is intended for the installation of the protection devices on to the DIN-rail

Rated current, A	Quantity of modules	A, mm	B, mm	C, mm	Code
63-160	4	400	320	210	PTN90ETCM1AA000
63-160	8	500	320	210	PTN90ETCM2AA000
250	12	600	400	250	PTN90ETCM3AA000

**Variants**

3P+N+PE (on the busbar body)	PTN90 <b>ET</b> CM1AA000
3P+NP+PE (on the busbar body)	PTN90 <b>OT</b> CM1AA000
3P+N+FE (bus)+PE (on the busbar body)	PTN90 <b>GT</b> CM1AA000
3P+NP+FE (bus)+PE (on the busbar body)	PTN90 <b>VT</b> CM1AA000

## Power tap-off box for installation of fuse-links


**Purpose:**

- connecting of consumers to the points of the busbar power takeoff.

**Characteristics:**

- intended for the installation of the fuse-links of NH series;
- the delivery set does not include fuse-links.

Rated current, A	A, mm	B, mm	C, mm	Dimension type of the fuse-link	Code
63	500	320	210	NH00	PTN90ETCF2AA000
160	600	400	250	NH00	PTN90ETCF4AA000
250	700	500	300	NH1	PTN90ETCF5AA000

**Variants**

3P+N+PE (on the busbar body)	PTN90ETCF2AA000
3P+NP+PE (on the busbar body)	PTN90OTCF2AA000
3P+N+FE (bus)+PE (on the busbar body)	PTN90GTCF2AA000
3P+NP+FE (bus)+PE (on the busbar body)	PTN90VTCF2AA000

## Power tap-off box with a disconnecter and a holder for the fuse-links


**Purpose:**

- connecting of consumers to the points of the busbar power takeoff.

**Characteristics:**

- there is a disconnecter in the box capable of the control of the external handle and a holder for the installation of the fuse-links;
- the delivery set does not include fuse-links.

Rated current, A	A, mm	B, mm	C, mm	Dimension type of the fuse-link	Disconnecter	Code
63	400	280	170	NH00	IHF 63	PTN90ETCD1AA000
160	500	320	210	NH00	IHF 80	PTN90ETCD2AA000
160	500	320	210	NH00	INF 160	PTN90ETCD3AA000
160	500	320	210	NH00	INF 200	PTN90ETCD4AA000
250	600	400	250	NH1	INF 315	PTN90ETCD5AA000
250	600	400	250	NH1	INF 400	PTN90ETCD6AA000
630	700	500	300	NH3	INF 630	PTN90ETCD7AA000
630	700	500	300	NH3	INF 800	PTN90ETCD8AA000

**Variants**

3P+N+PE (on the busbar body)	PTN90ETCD2AA000
3P+NP+PE (on the busbar body)	PTN90OTCD2AA000
3P+N+FE (bus)+PE (on the busbar body)	PTN90GTCF2AA000
3P+NP+FE (bus)+PE (on the busbar body)	PTN90VTCF2AA000

Power tap-off box for installation of automatic circuit breakers



- Purpose:**
- connecting of consumers to the points of the busbar power takeoff.
- Characteristics:**
- the box is made for the specific model MCCB;
  - the delivery set does not include automatic circuit breakers.

MCCB	Code	MCCB	Code	MCCB	Code	MCCB	Code
TMax T1	PTN90ETCT1AA000	DPX 125	PTN90ETCP1AA000	NSX 100	PTN90ETCY1AA000	3VA10	PTN90ETCA1AA000
TMax XT1	PTN90ETCX1AA000	DPX 160	PTN90ETCP2AA000	NSX 160	PTN90ETCY2AA000	3VA11	PTN90ETCA2AA000
TMax T2	PTN90ETCT2AA000	DPX 250	PTN90ETCP3AA000	NSX 250	PTN90ETCY3AA000	3VA21	PTN90ETCA4AA000
TMax XT2	PTN90ETCX2AA000	DPX 250ER	PTN90ETCP4AA000	NSX 400	PTN90ETCY4AA000	3VA22	PTN90ETCA5AA000
TMax T3	PTN90ETCT3AA000	DPX 630	PTN90ETCP5AA000	NSX 630	PTN90ETCY5AA000	3VA23	PTN90ETCA6AA000
TMax XT3	PTN90ETCX3AA000					3VA24	PTN90ETCA7AA000
TMax T4	PTN90ETCT4AA000						
TMax XT4	PTN90ETCX4AA000						
TMax T5	PTN90ETCT5AA000						
TMax T6	PTN90ETCT6AA000						

Variants

3P+N+PE (on the busbar body)	PTN90ETCT1AA000
3P+NP+PE (on the busbar body)	PTN90OTCT1AA000
3P+N+FE (bus)+PE (on the busbar body)	PTN90GTCT1AA000
3P+NP+FE (bus)+PE (on the busbar body)	PTN90VTCT1AA000





## Uninterruptible power supplies "RAM batt"

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# Uninterruptible power supplies "RAM batt"

## Area of application

"RAM batt" uninterruptible power supplies are designed for prevention of dangerous situations, connected with failures in the power supply due to the short-term and long-term shutdowns, undervoltage and overvoltage, impulse overcurrent, current and voltage distortions and unbalance.

The simplest and most effective solution to eliminate failures in the power supply and protect energy or manufacturing process is the installation of uninterruptible power supplies (UPS).

Interacting with supply network and consumers, the UPS guarantees the continuity and quality of power supply to any type of load and supply conditions.

UPS should be installed in data centers, servers, telecommunication systems, ticket offices and supermarket lighting systems, industrial installations, automation and security systems, etc.



**Supermarkets**



**Data centers**



**Shopping and business centers**

## Main advantages

### High efficiency

Due to the latest technologies in the field of solid-state electronics "RAM batt" UPS achieves an efficiency of over 96% in the Online mode. This has become possible through the use of new "green" technology in multi-level inverters.

### Low noise level

Pulse width modulation techniques (PWM) for controlling fans can minimize energy consumption and reduce noise thereby creating more comfortable working conditions.

### Fast switching

The improved process of synchronization with the network helps to minimize the switching time and system start-up considerably, as well as to increase energy saving mode

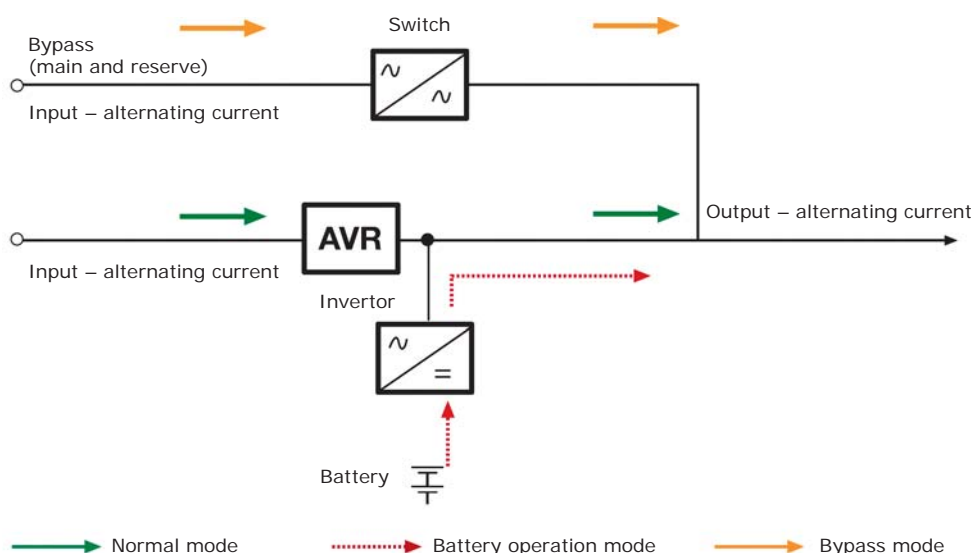
### Longer battery life

Charging the UPS batteries is optimized thanks to temperature compensation and permanent control over its condition.

## Uninterruptible power supplies types

Uninterruptible power supplies are divided into two groups with increasing degree of protection: with a line-interactive technology (VI) and online-double conversion technology (VFI).

### Line-interactive

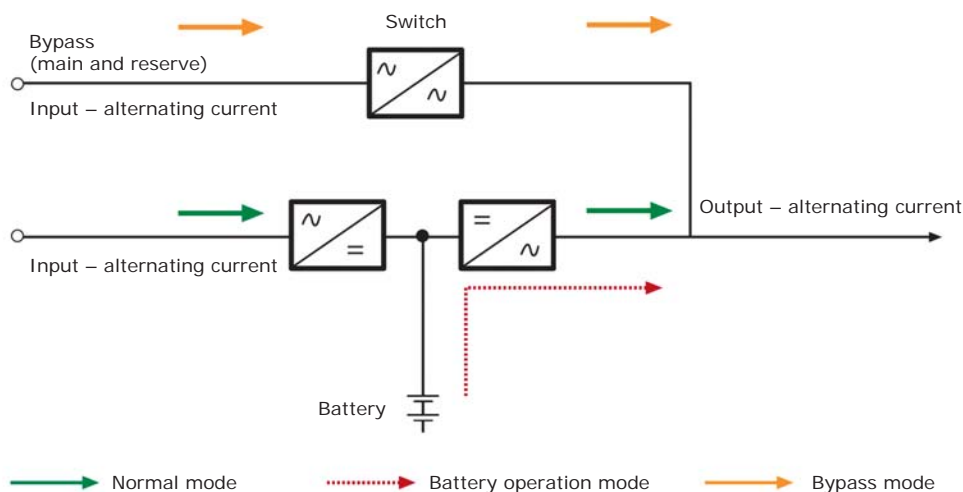


In uninterruptible power supply with line-interactive technology the load is fed from the network through AVR stabilizer (automatic voltage regulator) under normal conditions.

This device adjusts the changes in the network in its adjustable range.

When the network failures exceed the AVR adjustment range, the load switches to the inverter, which uses the energy stored in the batteries. The time required for the transition from stabilization mode to inverter takes 5–10 ms, this may create some problems for sensitive loads, for which the switching time should be equal to zero.

### Online



In uninterruptible power supply with Online-double conversion supply the load is fed through the inverter and input rectifier with power factor correction (PFC) providing a sinusoidal power consumption.

When the network voltage exceeds permissible rectifier values, UPS switches to battery mode, which allows the inverter to supply energy to the connected loads.

Turning on battery power mode is instantaneous (0 ms), thus ensuring maximum protection for any kind of load.

In case of failure of rectifier or inverter, or excessive load, UPS starts to work in bypass mode, which turns off electronics and provides power to the connected loads without failures. You can switch to bypass manually for scheduled and unscheduled maintenance on the battery block or double-conversion circuits.



## Low power UPS

"RAM batt" uninterruptible power supplies of Info and Small series are designed primarily for home PCs, office workstations, cash registers in supermarkets, in small capacity server and local networks. "RAM batt" UPS of Info series according to line-interactive technology, and Small series – according Online-technology of double conversion. Small Basic series are designed for vertical floor installation, Small Convert – for horizontal installation into rack.



Series	Info LED	Small Basic	Small Convert
Capacity, kVA	0,65 / 0,85 / 1,2 / 1,5 / 2 / 3	1 / 2 / 3	1 / 2 / 3
Technology	line-interactive	Online	
Waveform at the output	pseudo-sinusoidal	sinusoidal	
Input voltage	single-phase 230 V		
Output voltage	single-phase 230 V		
Automatic bypass	–	●	●
Manual bypass	–	–	–
Isolating transformer	–	–	–
Automatic battery test	–	●	●
Installation into rack	–	–	●
RS232 serial port	–	–	–
USB port	○	●	●
"Dry" contacts	–	○	○
EPO (emergency shutdown)	–	●	●
Economy mode	–	●	●
Backup power function	–	–	–
Frequency converter function	–	–	–
LCD display	–	●	●
Software	○	●	●
Possibility to increase autonomy	–	●	●
AS400 adapter	–	○	○
SNMP network adapter	–	○	○
"Green" technology	–	–	–
Saving operating mode	–	–	–

• Serially ◦ Optionally

## Medium and high power UPS

"RAM batt" UPS of Solo, Trio and Extra series are designed for servers, data centers and industrial facilities. Single-phase UPS of Solo MD and Solo MMB series are designed for installation into rack or for floor installation. "RAM batt" UPS of Trio TM series has three-phase input and one-phase output, and Trio TT and Extra TT series are fully three-phase.



Series	Solo MD	Solo MMB	Trio TM	Trio TT	Extra TT
Capacity, kVA	4 / 5 / 6 / 7 / 10 / 12	5 / 6 / 7 / 10 / 12 / 14 / 20	6 / 8 / 10 / 12 / 15 / 20	8 / 10 / 12 / 15 / 20 / 30 / 40	60 / 80 / 100 / 120
Technology	Online				
Waveform at the output	sinusoidal				
Input voltage	single-phase 230 V		three-phase 400 V		
Output voltage	single-phase 230 V			three-phase 400 V	
Automatic bypass	•	•	•	•	•
Manual bypass	•	•	•	•	•
Isolating transformer	◦	◦	◦	◦	◦
Automatic battery test	•	•	•	•	•
Installation into rack	•	–	•	–	–
RS232 serial port	•	•	•	•	•
USB port	◦	◦	◦	◦	◦
"Dry" contacts	◦	◦	◦	◦	◦
EPO (emergency shutdown)	•	•	•	•	•
Economy mode	•	•	•	•	•
Backup power function	•	•	•	•	•
Frequency converter function	•	•	•	•	•
LCD display	•	•	•	•	•
Software	•	•	•	•	•
Possibility to increase autonomy	•	•	•	•	•
AS400 adapter	◦	◦	◦	◦	◦
SNMP network adapter	◦	◦	◦	◦	◦
"Green" technology	•	•	•	•	•
Saving operating mode	•	•	•	•	•

• Serially ◦ Optionally

## "RAM batt" UPS of Info LED series


**Purpose:**

- uninterruptible load supply.

**Application:**

- personal computers;
- small information networks;
- cash registers;
- work stations;
- local networks (LAN).

**Distinctive features:**

- line-interactive technology;
- tower version;
- microprocessor control;
- automatic voltage regulation;
- wide input voltage range;
- "Cold" start – battery launch;
- automatic restart.

Model	Battery life for the 70 % load, min	Battery life for the 100 % load, min	Dimensions (HxWxD), mm	Net weight, kg	Code
<b>INFO650</b>	10	6	145 x 90 x 291	5	INFO650SI
<b>INFO850</b>	10	6	145 x 90 x 325	5,5	INFO850SI
<b>INFO1200</b>	10	6	195 x 122 x 341	8,5	INFO1200SI
<b>INFO1500</b>	10	6	212 x 145 x 428	17,5	INFO1500SI
<b>INFO2000</b>	10	6	212 x 145 x 428	19,5	INFO2000S
<b>INFO3000</b>	10	6	212 x 145 x 428	22	INFO3000S

## Characteristics of uninterruptible power supplies of Info LED series

"RAM batt" UPS of Info LED series		Model					
		INFO650	INFO850	INFO1200	INFO1500	INFO2000	INFO3000
Input	rated voltage, V	230					
	voltage tolerance, V	140–290					
	frequency, Hz	50/60 automatic selection					
	frequency tolerance	+/-10 %					
Output	rated power, VA	650	850	1200	1500	2000	3000
	active rated power, Watt	390	510	720	900	1200	1800
	rated voltage for mains operation, V	230 +/-10 %					
	nominal frequency operated from mains, Hz	50 or 60 +/-10 %					
	nominal voltage in battery mode, V	230 +/-10 %					
	nominal frequency in battery mode, Hz	50 +/-10 %					
	waveform	pseudo-sinusoidal, optimized for PC					
	switching time, ms	< 10					
Battery	charging time, h	6 (up to 90 % of charge)					
	battery type	VRLA maintenance-free lead-acid					
	battery runtime, min	10					
Physical characteristics	dimensions (WxDxH), mm	90x291x145	90x325x145	122x341x195	145x428x212		
	net weight, kg	5	5,5	8,5	17,5	19,5	22
	operation temperature, °C	0–40					
	relative humidity	< 95 % non-condensing					
	noise level	< 45 dB at 1 m					
	protection from	short circuit- overvoltage/ undervoltage – overload					
	input jack	Schuko					
output jack	1 x IEC C13 + 1 Schuko		2 x IEC C13 + 1 Schuko		3 Schuko		
Management and communication	visual indicators	network, charging, battery operation					
	external interface	USB – optionally					
Standards	safety and EMC standards	TP TC 004/2011; TP TC 020/2011; EN50091-1-1; EN50091-2; EN61000-2-2;EN61000-3-2; EN61000-4-2/-3/-4; Marking CE, EAC					

## "RAM batt" UPS of Small Basic series


**Purpose:**

- uninterruptible load supply.

**Application:**

- local networks (LAN);
- telecommunication means;
- industrial PLCs;
- workstations;
- servers;
- control enclosures.

**Distinctive features:**

- double conversion technology
- Online VFI;
- tower version;
- high contrast LCD display;
- microprocessor control;
- "Cold" start – battery launch;
- automatic restart;
- possibility to increase autonomy.

Model	Output power kVA/kW	Backup time for the 70 %/100 % load, min	Internal batteries	Dimensions (HxWxD), mm	Net weight, kg	Code
SMALLB1	1/0,8	10/6	36 V, 3 x 7 Ah	230x144x350	14	SMALLB1A10S
		–	–	230x144x350	7	SMALLB1EXTS
SMALLB2	2/1,6	11/7	72 V, 6 x 7 Ah	328x190x425	26	SMALLB2A10S
		–	–	328x190x425	14	SMALLB2EXTS
SMALLB3	3/2,4	10/6	96 V, 8 x 7 Ah	328x190x425	32	SMALLB3A10S
		–	–	328x190x425	14	SMALLB3EXTS

### Accessories

Description	Internal batteries	Dimensions (HxWxD), mm	Net weight, kg	Code
Additional battery unit for SMALLB1EXT	36 V, 6 x 7 Ah	230x144x350	17	BPSMLB1-36V
Additional battery unit for SMALLB2EXT	72 V, 12 x 7 Ah	328x190x425	34	BPSMLB2-72V
Additional battery unit for SMALLB3EXT	96 V, 16 x 7 Ah	328x190x425	42	BPSMLB3-96V
Adapter SNMP for Small series				SNMPSMALL
Adapter AS400 for Small series				AS400SMALL

### Backup time with additional barrery unit

Order code	Backup time for the 70 % load, min	Backup time for the 100 % load, min
SMALLB1A10S	10	6
SMALLB1EXTS + BPSMLB1-36V	28	19
SMALLB1EXTS + 2 BPSMLB1-36V	65	45
SMALLB2A10S	11	7
SMALLB2EXTS + BPSMLB2-72V	25	15
SMALLB2EXTS + 2 BPSMLB2-72V	55	37
SMALLB3A10S	10	6
SMALLB3EXTS + BPSMLB3-96V	33	22
SMALLB3EXTS + 2 BPSMLB3-96V	65	44

## Characteristics of uninterruptible power supplies of Small Basic series

"RAM batt" UPS of Small Basic series		Model		
		SMALLB1	SMALLB2	SMALLB3
Input	rated voltage, V	from 95 to 300 (0–60 % of load), from 161 to 286 (60–100 % of load) compatible with electric generator		
	frequency, Hz	50–60 +/-5 % auto memory		
	THD	< 7 %		
	power factor	> 0,98		
	type/number of connectors	1 Schuko		
Output	rated power, VA	1000	2000	3000
	active rated power, Watt	800	1600	2400
	voltage, V	220 / 230 / 240 (selectable)		
	precision of voltage stabilization	+/-2 %		
	waveform	pure sinewave		
	frequency, Hz	50 / 60 +/-0,1 (selectable)		
	THD	< 3 %		
	crest factor	3:1		
	overload	120 % during 1 minute – 150 % during 30 seconds		
	type/number of connectors	2 x Schuko 16A		
Operating characteristics	switching time	0		
	EFFICIENCY	94 % (Online) – 98 % (eco-mode)		
	charging time, h	4–6		
	battery test	automatically - manually		
	bypass	integrated automatic 0 ms		
	protection from	overload – short circuit– battery discharge– overvoltage – overheating		
	operation temperature, °C	0–40		
	noise level	< 45 dB at 1 m	< 50 dB at 1 m	
Physical parameters	dimensions (HxWxD), mm	230x144x350	328x190x425	
	net weight for base autonomy, kg	14	26	32
Management and communication	LCD display	load, network, battery and operation mode		
	external interface	RS 232 – USB – "Dry" contacts		
	EPO (emergency shutdown)	yes		
	management and shutdown software	included		
	delivery kit	1 input cable 10 A, 1 USB-cable, software		
Accessories	external battery block	yes		
	AS400 adapter	alarm signals through "Dry" contacts and isolated digital inputs		
	external interfaces board	Ethernet protocol – SNMP-agent		
	isolating transformer	optionally integrated or in a separate enclosure		
Standards	EMC standard	TP TC 020/2011, EN61000-6-1, 61000-6-3		
	safety standards	TP TC 004/2011, EN 62040-1, EN 62040-2, guideline 73/23/EC, 93/68/EC		

## "RAM batt" UPS of Small Convert series



### Purpose:

- uninterruptible load supply.

### Application:

- local networks(LAN);
- telecommunication means;
- data centers;
- workstations;
- servers.

### Distinctive features:

- double conversion technology Online VFI;
- rack and tower version;
- high contrast rotary LCD display;
- microprocessor control;
- "Cold" start – battery launch;
- automatic restart;
- possibility to increase autonomy;
- compact size – 2U.

Model	Output power kVA/kW	Backup time for the 70 %/100 % load, min	Internal batteries	Dimensions (HxWxD), mm	Net weight, kg	Code
SMALLC1	1/0,9	10/6	36 V, 3 x 7 Ah	88x482x476, 2U	16	SMALLC1A10I
		–	–	88x482x476, 2U	13	SMALLC1EXTI
SMALLC2	2/1,8	–	–	88x482x476, 2U	13	SMALLC2EXTI
SMALLC3	3/2,7	–	–	88x482x476, 2U	13	SMALLC3EXTI

## Accessories

Description	Internal batteries	Dimensions (HxWxD)	Net weight, kg	Code
Additional battery unit for SMALLC1EXT	36 V, 6 x 7 Ah	88x482x476, 2U	17	BPSMLC1-36V
Additional battery unit for SMALLC2EXT	72 V, 6 x 7 Ah	88x482x476, 2U	17	BPSMLC2-72V
Additional battery unit for SMALLC3EXT	96 V, 8 x 7 Ah	88x482x476, 2U	19	BPSMLC3-96V
Adapter SNMP for Small series				SNMPSMALL
Adapter AS400 for Small series				AS400SMALL

## Backup time with additional barrery unit

Order code	Backup time for the 70 % load, min	Backup time for the 100 % load, min
SMALLC1A10I	10	6
SMALLC1EXTI + BPSMLC1-36V	30	20
SMALLC1EXTI + 2 BPSMLC1-36V	70	44
SMALLC2EXTI + BPSMLC2-72V	10	7
SMALLC2EXTI + 2 BPSMLC2-72V	22	15
SMALLC2EXTI + 4 BPSMLC2-72V	55	38
SMALLC3EXTI + BPSMLC3-96V	10	6
SMALLC3EXTI + 2 BPSMLC3-96V	28	16
SMALLC3EXTI + 3 BPSMLC3-96V	60	36

## Characteristics of uninterruptible power supplies of Small Convert series

"RAM batt" UPS of Small Convert series		Model		
		SMALLC1	SMALLC2	SMALLC3
Input	rated voltage, V	from 95 to 300 (0–60 % of load), from 161 to 286 (60–100 % of load) compatible with electric generator		
	frequency, Hz	50–60 +/-5 % auto memory		
	THD	< 7 %		
	power factor	> 0,98		
	type/number of connectors	1 IEC C14		
Output	rated power, VA	1000	2000	3000
	active rated power, Watt	900	1800	2700
	voltage, V	220 / 230 / 240 (selectable)		
	precision of voltage stabilization	+/-2 %		
	waveform	pure sinewave		
	frequency, Hz	50 / 60 +/-0,1 (selectable)		
	THD	< 3 %		
	crest factor	3:1		
	overload	105 % during 1 min – 120 % during 30 seconds		
	type/number of connectors	4 IEC C13		
Operating characteristics	switching time	0		
	EFFICIENCY	94 % (Online) – 98 % (eco-mode)		
	charging time, h	4–6		
	battery test	automatically - manually		
	bypass	integrated automatic 0 ms		
	protection from	overload – short circuit– battery discharge– overvoltage –overheating		
	operation temperature, °C	0–40		
	noise level	< 45 dB at 1 m	< 50 dB at 1 m	
Physical parameters	dimensions(HxWxD, format), mm/number of blocks	88x482x476, 2U		88x482x476, 2U / x 2 pcs.
	net weight for base autonomy, kg	16	28	36
Management and communication	LCD display	load, network, battery and operation mode		
	external interface	USB – "Dry" contacts		
	EPO (emergency shutdown)	yes		
	management and shutdown software	included		
	delivery kit	1 USB-cable, software		
Accessories	external battery block	yes		
	AS400 adapter	alarm signals through "Dry" contacts and isolated digital inputs		
	external interfaces board	Ethernet protocol - SNMP-agent		
	isolating transformer	optionally integrated or in a separate enclosure		
Standards	EMC standard	TP TC 020/2011, EN61000-6-1, 61000-6-3		
	safety standards	TP TC 004/2011, EN 62040-1, EN 62040-2, guideline 73/23/EC, 93/68/EC		



## "RAM batt" UPS of Solo series



### Purpose:

- uninterruptible load supply.

### Application:

- local networks(LAN);
- industrial PLCs;
- data centers;
- electromedical equipment;
- servers;
- emergency devices.

### Distinctive features:

- double conversion technology Online VFI;
- EFFICIENCY up to 98 % in eco-mode;
- rack and tower version;
- compact size;
- microprocessor control;
- low noise level due to fan control with PWM;
- possibility to increase autonomy;
- remote monitoring with SNMP-agent and adapter AS400;
- overload up to 200 %.

Model	Output power kVA/kW	Backup time for the 70 %/100 % load, min	Batteries	Dimensions (HxWxD), mm / number of blocks	Net weight, kg	Code
SOLOMD4	4/3,6	11/8	12 x 7 Ah	215x445x700, 5U	50	SOLOMD4A10
		21/15	15 x 9 Ah	215x445x700, 5U	65	SOLOMD4A20
		37/26	30 x 7 Ah	215x445x700, 5U	104	SOLOMD4A30
		50/37	30 x 9 Ah	215x445x700, 5U	110	SOLOMD4A40
		62/45	45 x 7 Ah	215x445x700, 5U / x 2 pcs.	161	SOLOMD4A60
SOLOMD5	5/4,5	11/8	15 x 7 Ah	215x445x700, 5U	62	SOLOMD5A10
		27/20	30 x 7 Ah	215x445x700, 5U	104	SOLOMD5A20
		38/27	30 x 9 Ah	215x445x700, 5U	110	SOLOMD5A30
		46/33	45 x 7 Ah	215x445x700, 5U / x 2 pcs.	161	SOLOMD5A40
		64/46	45 x 9 Ah	215x445x700, 5U / x 2 pcs.	170	SOLOMD5A60
SOLOMD6	6/5,4	12/9	18 x 7 Ah	215x445x700, 5U	65	SOLOMD6A10
		22/16	30 x 7 Ah	215x445x700, 5U	104	SOLOMD6A20
		30/22	30 x 9 Ah	215x445x700, 5U	110	SOLOMD6A30
		51/37	45 x 9 Ah	215x445x700, 5U / x 2 pcs.	155	SOLOMD6A40
		74/53	60 x 9 Ah	215x445x700, 5U / x 2 pcs.	230	SOLOMD6A60
SOLOMD7	7/6,3	13/9	20 x 7 Ah	215x445x700, 5U	76	SOLOMD7A10
		25/18	30 x 9 Ah	215x445x700, 5U	110	SOLOMD7A20
		30/22	45 x 7 Ah	215x445x700, 5U / x 2 pcs.	164	SOLOMD7A30
		41/30	45 x 9 Ah	215x445x700, 5U / x 2 pcs.	170	SOLOMD7A40
		60/44	60 x 9 Ah	215x445x700, 5U / x 2 pcs.	230	SOLOMD7A60
SOLOMD10	10/9	9/7	20 x 9 Ah	215x445x700, 5U	85	SOLOMD10A10
		20/15	40 x 7 Ah	215x445x700, 5U / x 2 pcs.	152	SOLOMD10A20
		38/27	60 x 9 Ah	215x445x700, 5U / x 2 pcs.	220	SOLOMD10A30
		51/37	80 x 7 Ah	215x445x700, 5U / x 3 pcs.	265	SOLOMD10A40
		64/47	100 x 7 Ah	215x445x700, 5U / x 3 pcs.	340	SOLOMD10A60
SOLOMD12	12/10,8	12/9	30 x 9 Ah	215x445x700, 5U / x 2 pcs.	130	SOLOMD12A10
		21/15	40 x 9 Ah	215x445x700, 5U / x 2 pcs.	160	SOLOMD12A20
		30/22	60 x 9 Ah	215x445x700, 5U / x 2 pcs.	220	SOLOMD12A30
		40/29	80 x 9 Ah	215x445x700, 5U / x 3 pcs.	295	SOLOMD12A40
		62/45	100 x 9 Ah	215x445x700, 5U / x 3 pcs.	355	SOLOMD12A60
SOLOMBB14	14/12,6	13/8	40 x 7 Ah	700x300x900	140	SOLOMBB14A10
		30/18	60 x 9 Ah	700x300x900	220	SOLOMBB14A30
		60/34	100 x 9 Ah	700x300x900 / x 2 pcs.	370	SOLOMBB14A60
		90/53	140 x 9 Ah	700x300x900 / x 2 pcs.	490	SOLOMBB14A90
SOLOMBB20	20/18	12/6	40 x 9 Ah	700x300x900	165	SOLOMBB20A10
		29/16	80 x 9 Ah	700x300x900 / x 2 pcs.	315	SOLOMBB20A30
		65/40	20 x 65 Ah	700x300x900 1400x610x880	615	SOLOMBB20A60
		110/60	20 x 100 Ah	700x300x900 1400x610x880	795	SOLOMBB20A120

## Characteristics of uninterruptible power supplies of Solo series

"RAM batt" UPS of Solo MD series		Model					
		SOLOMD4	SOLOMD5	SOLOMD6	SOLOMD7	SOLOMD10	SOLOMD12
Input	rated voltage, V	180–276 (compatible with electric generator)					
	frequency, Hz	48–62					
	THD	< 5 %					
	power factor	> 0,98					
	type/number of connectors	terminal block					
Output	nominal capacity, kVA	4	5	6	7	10	12
	active nominal power, kWt	3,6	4,5	5,4	6,3	9,0	10,8
	voltage, V	220 / 230 / 240 (selectable)					
	precision of voltage stabilization	+/-1 % at 230 V					
	waveform	pure sinewave					
	frequency, Hz	50 / 60 +/-0,1 (selectable)					
	rated current at 230 V, A	17,4	21,7	26,1	30,4	43,5	52,2
	starting current at 230 V, A	26,1	32,6	39,1	45,7	65,2	78,3
	crest factor	3:1					
	overload	150% for 30 seconds - 200% (short circuit current)					
	type/number of connectors	terminal block					
Operating characteristics	switching time	0					
	EFFICIENCY	94 % (Online) – 98 % (eco-mode)					
	charging time, h	4–6					
	battery test	continuously in automatic mode					
	bypass	integrated automatic 0 mc/ service manual bypass					
	protection from	overload – short circuit – battery discharge – overvoltage – overheating operation					
	temperature, °C	0–40					
Physical parameters	noise level	< 45 dB at 1 m at full load – fan control with PWM					
	dimensions (HxWxD, format) mm / number of blocks	215x445x700, 5U					215x700x445, 5U / x 2 pcs.
Management and communication	net weight for base autonomy, kg	50	62	65	75	85	130
	LCD display	2x16 symbols, blue backlight, 4 control buttons					
	external interface	RS 232 – USB (optionally)					
	EPO (emergency shutdown)	yes					
Accessories	management and shutdown software	included					
	external battery block	versions for installation into stand or horizontally on wheels					
	AS400 adapter	alarm signals through "Dry" contacts and isolated digital inputs external interfaces					
	external interfaces board	Ethernet protocol – SNMP-agent					
Standards	isolating transformer	optionally integrated or in a separate enclosure					
	EMC standard	TP TC 020/2011, CEI EN 50091-2, EN61000-3-2 (CRM), 61000-3-3 (flicker)					
Standards	safety standards	TP TC 004/2011, CEI EN 60950, EN 62040-1-1, guideline 73/23/EC, 93/68/EC					

## "RAM batt" UPS of Trio TM series



### Purpose:

- uninterruptible load supply.

### Application:

- industrial systems;
- telecommunication means;
- local networks(LAN);
- industrial PLCs;
- data centers;
- electromedical equipment;
- servers;
- emergency devices.

### Distinctive features:

- double conversion technology Online VFI;
- EFFICIENCY up to 96% in Online-mode and up to 98% in eco-mode;
- rack and tower version;
- compact size;
- microprocessor control;
- low noise level due to fan control with PWM;
- possibility to increase autonomy;
- remote monitoring with SNMP-agent and adapter AS400;
- overload up to 200 %.

Model	Output power kVA/kW	Backup time for the 70 %/100 % load, min	Batteries	Dimensions (HxWxD, format), mm/ number of blocks	Net weight, kg	Code
TRIOTM6	6/4,8	12/9	20 x 7 Ah	215x445x700, 5U	80	TRIOTM6A10
		35/25	40 x 7 Ah	215x445x700, 5U / x 2 pcs.	162	TRIOTM6A30
		70/55	60 x 9 Ah	215x445x700, 5U / x 3 pcs.	230	TRIOTM6A60
		120/90	120 x 7 Ah	700x300x900 / x 2 pcs.	400	TRIOTM6A120
TRIOTM8	8/6,4	8/6	20 x 7 Ah	215x445x700, 5U	80	TRIOTM8A10
		30/20	40 x 9 Ah	215x445x700, 5U / x 2 pcs.	170	TRIOTM8A30
		60/35	80 x 7 Ah	215x445x700, 5U / x 3 pcs.	294	TRIOTM8A60
		120/90	120 x 9 Ah	700x300x900 / x 2 pcs.	425	TRIOTM8A120
TRIOTM10	10/8	10/6	20 x 9 Ah	215x445x700, 5U	80	TRIOTM10A10
		30/15	40 x 9 Ah	215x445x700, 5U / x 2 pcs.	170	TRIOTM10A30
		54/30	80 x 7 Ah	215x445x700, 5U / x 3 pcs.	294	TRIOTM10A60
		110/68	120 x 9 Ah	700x300x900 / x 2 pcs.	425	TRIOTM10A120
TRIOTM12	12/9,6	15/9	40 x 7 Ah	215x445x700, 5U / x 2 pcs.	167	TRIOTM12A15
		40/22	60 x 9 Ah	215x445x700, 5U / x 3 pcs.	235	TRIOTM12A30
		57/30	80 x 9 Ah	700x300x900 / x 2 pcs.	310	TRIOTM12A60
		126/78	20 x 65 Ah	700x300x900 1400x610x880	605	TRIOTM12A120
TRIOTM15	15/12	14/8	40 x 7 Ah	700x300x900	145	TRIOTM15A10
		33/20	80 x 7 Ah	700x300x900 / x 2 pcs.	280	TRIOTM15A30
		56/35	120 x 7 Ah	700x300x900 / x 2 pcs.	380	TRIOTM15A60
		113/69	20 x 65 Ah	700x300x900 1400x610x880	595	TRIOTM15A120
TRIOTM20	20/16	12/6	40 x 9 Ah	700x300x900	165	TRIOTM20A10
		29/16	80 x 9 Ah	700x300x900 / x 2 pcs.	320	TRIOTM20A30
		65/40	20 x 65 Ah	700x300x900 1400x610x880	595	TRIOTM20A60
		110/60	20 x 100 Ah	700x300x900 1400x610x880	850	TRIOTM20A120

## Characteristics of uninterruptible power supplies of Trio TM series

"RAM batt" UPS of Trio series		Model					
		TRIOTM6	TRIOTM8	TRIOTM10	TRIOTM12	TRIOTM15	TRIOTM20
Input	rated voltage, V	315–470 (compatible with electric generator)					
	frequency, Hz	48–62					
	THD	< 3 %					
	power factor	≥ 0,99					
	type/number of connectors	terminal block					
Output	nominal capacity, kVA	6	8	10	12	15	20
	TM active nominal power, kWt	4,8	6,4	8	9,6	12	16
	TM voltage, V	220 / 230 / 240 (selectable)					
	precision of voltage stabilization	±1 % at 230 V					
	waveform	pure sine wave					
	frequency, Hz	50 / 60 ±0,1 (selectable)					
	TM rated current at 230 V, A	26,1	34,7	43,5	52,2	65,2	87,0
	starting current at 230 V TM, A	39,1	52,1	65,2	78,3	97,8	130,4
	crest factor	3:1					
	overload	150% for 30 seconds – 200% (short circuit current)					
	type/number of connectors	terminal block					
Operating characteristics	switching time	0					
	EFFICIENCY	96 % (Online) – 98 % (eco-mode)					
	charging time, h	4–6					
	battery test	continuously in automatic mode					
	bypass	integrated automatic 0 mc/ service manual bypass					
	protection from	overload – short circuit – battery discharge – overvoltage – overload					
	operation temperature, °C	0–40					
	noise level	< 45 dB at 1 m at full load – fan control with PWM					
Physical parameters	TM dimensions (HxWxD), mm	215x445x700 / 5U				700x300x900	
	net weight for base autonomy, kg	80	95	105	145	145	165
Management and communication	LCD display	2x16 symbols, blue backlight, 4 control buttons					
	external interface	RS 232 – USB (optionally)					
	EPO (emergency shutdown)	yes					
	management and shutdown software	included					
Accessories	external battery block	vertical version on wheels					
	AS400 adapter	alarm signals through "Dry" contacts and isolated digital inputs					
	external interfaces board	Ethernet protocol – SNMP-agent					
	isolating transformer	optionally integrated or in a separate enclosure					
Standards	EMC standard	TP TC 020/2011, CEI EN 50091-2, EN61000-3-2 (CRM), 61000-3-3 (flicker)					
	safety standards	TP TC 004/2011, CEI EN 60950, EN 62040-1-1, guideline 73/23/EC, 93/68/EC					

## "RAM batt" UPS of Trio TT series



### Purpose:

- uninterruptible load supply.

### Application:

- industrial systems;
- telecommunication means;
- local networks(LAN);
- industrial PLCs;
- data centers;
- electromedical equipment;
- servers;
- emergency devices.

### Distinctive features:

- double conversion technology Online VFI;
- EFFICIENCY up to 96% in Online-mode and up to 98% in eco-mode;
- tower version;
- compact size;
- microprocessor control;
- low noise level due to fan control with PWM;
- Possibility to increase autonomy;
- remote monitoring with SNMP-agent and adapter AS400;
- overload up to 200 %.

Model	Output power kVA/kW	Backup time for the 70 %/100 % load, min	Batteries	Dimensions (HxWxD, format), mm/ number of blocks	Net weight, kg	Code
TRIOTT8	8/8	8/6	20 x 7 Ah	700x300x900	95	TRIOTT8A10
		30/20	40 x 9 Ah	700x300x900	165	TRIOTT8A30
		60/35	80 x 7 Ah	700x300x900 / x 2 pcs.	280	TRIOTT8A60
		120/90	120 x 9 Ah	700x300x900 / x 2 pcs.	440	TRIOTT8A120
TRIOTT10	10/10	10/6	20 x 9 Ah	700x300x900	105	TRIOTT10A10
		30/15	40 x 9 Ah	700x300x900	165	TRIOTT10A30
		54/30	80 x 7 Ah	700x300x900 / x 2 pcs.	280	TRIOTT10A60
		110/68	120 x 9 Ah	700x300x900 / x 2 pcs.	440	TRIOTT10A120
TRIOTT12	12/12	15/9	40 x 7 Ah	700x300x900	145	TRIOTT12A15
		40/22	60 x 9 Ah	700x300x900 / x 2 pcs.	260	TRIOTT12A30
		57/30	80 x 9 Ah	700x300x900 / x 2 pcs.	320	TRIOTT12A60
		126/78	20 x 65 Ah	700x300x900 1400x610x880	615	TRIOTT12A120
TRIOTT15	15/15	14/8	40 x 7 Ah	700x300x900	145	TRIOTT15A10
		33/20	80 x 7 Ah	700x300x900 / x 2 pcs.	280	TRIOTT15A30
		56/35	120 x 7 Ah	700x300x900 / x 2 pcs.	380	TRIOTT15A60
		113/69	20 x 65 Ah	700x300x900 1400x610x880	615	TRIOTT15A120
TRIOTT20	20/20	12/6	40 x 9 Ah	700x300x900	165	TRIOTT20A10
		29/16	80 x 9 Ah	700x300x900 / x 2 pcs.	320	TRIOTT20A30
		65/40	20 x 65 Ah	700x300x900 1400x610x880	615	TRIOTT20A60
		110/60	20 x 100 Ah	700x300x900 1400x610x880	795	TRIOTT20A120
TRIOTT30	30/24	13/7	80 x 7 Ah	700x300x900 / x 2 pcs.	290	TRIOTT30A10
		30/16	120 x 9 Ah	700x300x900 / x 3 pcs.	450	TRIOTT30A30
		52/29	20 x 80 Ah	700x300x900 1400x610x880	655	TRIOTT30A60
		100/52	20 x 120 Ah	700x300x900 1400x610x880	855	TRIOTT30A90
		122/67	20 x 150 Ah	700x300x900 1400x810x880	1105	TRIOTT30A120
TRIOTT40	40/32	11/7	80 x 9 Ah	700x300x900 / x 2 pcs.	330	TRIOTT40A10
		29/16	20 x 65 Ah	700x300x900 1400x610x880	625	TRIOTT40A30
		56/30	20 x 120 Ah	700x300x900 1400x610x880	855	TRIOTT40A60
		85/46	20 x 150 Ah	700x300x900 1400x810x880	1105	TRIOTT40A90
		115/60	20 x 200 Ah	700x300x900 1900x810x980	1455	TRIOTT40A120

## Characteristics of uninterruptible power supplies of Trio TT series

"RAM batt" UPS of Trio series		Model						
		TRIOTT8	TRIOTT10	TRIOTT12	TRIOTT15	TRIOTT20	TRIOTT30	TRIOTT40
Input	rated voltage, V	315–470 (compatible with electric generator)						
	frequency, Hz	48–62						
	THD	< 3 %						
	power factor	>= 0,99						
	type/number of connectors	terminal block						
Output	nominal capacity, kVA	8	10	12	15	20	30	40
	TT active nominal power, kWt	8,0	10	12	15	20	24	32
	TT voltage, V	380 / 400 / 415 (selectable)						
	precision of voltage stabilization	+/-1 % at 230 V						
	waveform	pure sinewave						
	frequency, Hz	50 / 60 +/-0,1 (selectable)						
	TT rated current at 230 V, A	11,6	14,5	17,5	21,7	29,0	43,5	58,0
	starting current at 230 V TT, A	17,4	21,7	26,1	32,6	43,5	65,3	87,0
	crest factor	3:1						
	overload	150% for 30 seconds - 200% (short circuit current)						
	type/number of connectors	terminal block						
Operating characteristics	switching time	0						
	EFFICIENCY	96 % (Online) – 98 % (eco-mode)						
	charging time, h	4–6						
	battery test	continuously in automatic mode						
	bypass	integrated automatic 0 mc/ service manual bypass						
	protection from	overload – short circuit– battery discharge– overvoltage – overload						
	operation temperature, °C	0–40						
	noise level	< 45 dB at 1 m at full load – fan control with PWM						
	TT dimensions (HxWxD), mm	700x300x900					2 pcs. 700x300x900	
	net weight for base autonomy, kg	95	105	145	145	165	290	330
Management and communication	LCD display	2x16 symbols, blue backlight, 4 control buttons						
	external interface	RS 232 – USB (optionally)						
	EPO (emergency shutdown)	yes						
	management and shutdown software	included						
Accessories	external battery block	vertical version on wheels						
	AS400 adapter	alarm signals through "Dry" contacts and isolated digital inputs						
	external interfaces board	Ethernet protocol – SNMP-agent						
	isolating transformer	optionally integrated or in a separate enclosure						
Standards	EMC standard	TP TC 020/2011, CEI EN 50091-2, EN61000-3-2 (CRM), 61000-3-3 (flicker)						
	safety standards	TP TC 004/2011, CEI EN 60950, EN 62040-1-1, guideline 73/23/EC, 93/68/EC						

## "RAM batt" UPS of Extra TT series



### Purpose:

- uninterruptible load supply.

### Application:

- industrial systems;
- telecommunication means;
- local networks(LAN);
- industrial PLCs;
- data centers;
- electromedical equipment;
- servers;
- emergency devices.

### Distinctive features:

- technology of double conversion Online VFI;
- EFFICIENCY up to 96% in Online-mode and up to 98% in eco-mode;
- tower version;
- microprocessor control;
- low noise level due to fan control with PWM;
- possibility to increase autonomy;
- remote monitoring with SNMP-agent and adapter AS400.

Model	Output power kVA/kW	Backup time for the 70 %/100 % load, min	Batteries	Dimensions (HxWxD), mm/ number of blocks	Net weight, kg	Code
EXTRATT60	60/60	13/8	60 x 24 Ah	1800x560x940	800	EXTRATT60A10
		30/17	60 x 40 Ah	1800x560x940 1400x810x880	1050	EXTRATT60A30
		53/30	60 x 65 Ah	1800x560x940 1900x810x980	1650	EXTRATT60A60
EXTRATT80	80/80	11/6	60 x 24 Ah	1800x560x940	850	EXTRATT80A10
		27/15	60 x 50 Ah	1800x560x940 1900x810x980	1350	EXTRATT80A30
		51/29	60 x 80 Ah	1800x560x940 1900x810x980	1850	EXTRATT80A60
EXTRATT100	100/100	15/8	60 x 40 Ah	1800x560x940 1400x810x880	1120	EXTRATT100A10
		35/20	60 x 80 Ah	1800x560x940 1900x810x980	1870	EXTRATT100A30
		60/36	60 x 120 Ah	1800x560x940 1900x810x980 / x 2 pcs.	3120	EXTRATT100A60
EXTRATT120	120/120	15/8	60 x 50 Ah	1800x560x940 1900x810x980	1430	EXTRATT120A10
		35/20	60 x 100 Ah	1800x560x940 1900x1200x1000	2460	EXTRATT120A30
		60/36	60 x 150 Ah	1800x560x940 1900x810x980 / x 2 pcs.	3860	EXTRATT120A60

## Characteristics of uninterruptible power supplies of Extra TT series

"RAM batt" UPS of Extra TT series		Model			
		EXTRATT60	EXTRATT80	EXTRATT100	EXTRATT120
Input	rated voltage, V	400 -20 % +15 %			
	frequency, Hz	45-65			
	THD	< 3 %			
	power factor	≥ 0,99			
	type/number of connectors	terminal block			
Output	nominal capacity, kVA	60	80	100	120
	active nominal power, kWt	60	80	100	120
	voltage, V	380 / 400 / 415 (selectable)			
	precision of voltage stabilization	±1 % at 400 V			
	waveform	pure sine wave			
	frequency, Hz	50 / 60			
	rated current at 400 V, A	87	116	145	174
	starting current at 400 A, A	130,5	174	217,5	261
	crest factor	3:1			
	overload	125 % for 10 min - 150 % for 30 sec			
	type/number of connectors	terminal block			
Operating characteristics	switching time	0			
	EFFICIENCY	96 % (Online) - 98 % (eco-mode)			
	charging time, h	4-6			
	battery test	continuously in automatic mode			
	bypass	integrated automatic 0 mc/ service manual bypass			
	protection from	overload - short circuit- battery discharge- overvoltage - overload			
	operation temperature, °C	0-40			
	noise level	< 60 dB at the distance of 1 m			
Physical parameters	dimensions (HxWxD), mm	1800x560x940		1800x560x940 + 1400x810x880	
	peso netto autonomia base (kg)	800	850	1120	1430
Management and communication	LCD display	wide display blue backlit, 4 buttons			
	external interface	RS 232 - USB			
	EPO (emergency shutdown)	yes			
	management and shutdown software	included			
Accessories	external battery block	optionally			
	AS400 adapter	alarm signals through "Dry" contacts and isolated digital inputs			
	external interfaces board	Ethernet protocol - SNMP-agent			
	isolating transformer	optionally integrated or in a separate enclosure			
Standards	EMC standard	TP TC 020/2011, CEI EN 50091-2, EN61000-3-2 (CRM), 61000-3-3 (flicker)			
	safety standards	TP TC 004/2011, CEI EN 60950, EN 62040-1-1, guideline 73/23/EC, 93/68/EC			



## Adapters

### AS400


**Purpose:**

- UPS remote monitoring.

**Application:**

- Small, Solo, Trio.

**Distinctive features:**

- 4 relay outputs – "Dry" contacts;
- 2 optoisolated digital inputs to switch the inverter on and off;
- standard emergency messages: switching to the bypass, UPS failure, UPS battery operation, battery failure;
- DB9 jack.

### SNMPSMALL


**Purpose:**

- UPS remote monitoring.

**Application:**

- Small.

**Distinctive features:**

- installed inside UPS;
- for LAN 10/100 Mb local network connection;
- main communication protocols (TCP/IP, http, SNMP);
- UPS parameters control in real time mode;
- remote installation of required parameters.

### SNMPMMD


**Purpose:**

- UPS remote monitoring.

**Application:**

- Solo, Trio.

**Distinctive features:**

- installed inside UPS;
- for LAN 10/100 Mb local network connection;
- main communication protocols (TCP/IP, http, SNMP);
- UPS parameters control in real time mode;
- remote installation of required parameters.

Adapter description	UPS series	Code
AS400	Small	AS400SMALL
	Solo, Trio	AS400MMD
SNMP	Small	SNMPSMALL
	Solo, Trio	SNMPMMD

## Software for UPS control and shutdown

Uninterruptible power supply cannot independently ensure full protection of information systems, which it feeds, for various reasons including:

- limited time of battery offline work;
- temporary connections (such as heaters and vacuum cleaners may lead to overload, which makes the protection produced by UPS insufficient);
- installation in closed areas (for example, in data centers) or non-stop operation mode can lead to complications or inability to obtain emergency signals that, as a consequence, endangers the safety of critical equipment.

DKC production was developed for effective two-way communication with control system to protect against failures. There are two types of connections: on site – via Software for monitoring; or remote – using Ethernet interface for controlling multiple units simultaneously.

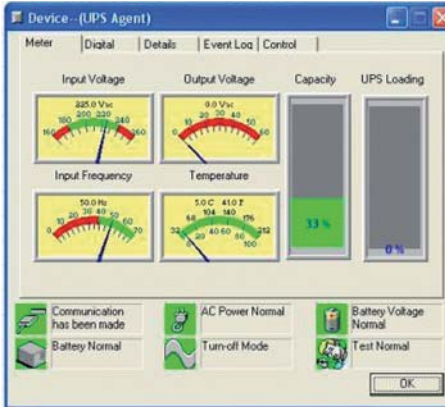
### On-site monitoring



To protect single computer (server or workstation) and related peripheral devices simply connect to a PC via RS232 or USB and install the Software. In this case you can control main operating parameters in real time (voltage, current, charge percentage and battery status), as well as view data statistics (operating time, power outages, failures, the average percentage of charge, etc) through the appropriate software.

With the help of such software, you can set basic system operating parameters. Shutdown system is included, which is supported by most common operating systems. Moreover, using AS400 "dry" contacts adapter you can connect to the systems of the same standard or transmit signals of accidents or malfunctions to control center with the help of "dry" relay contacts.

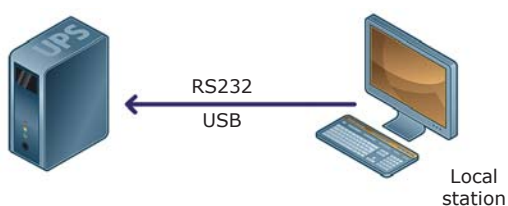
### Remote monitoring



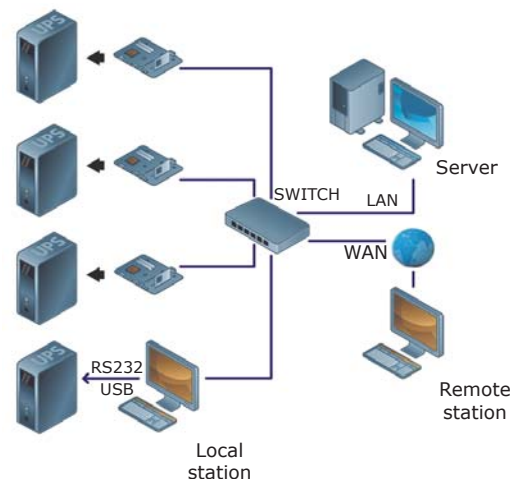
For comprehensive protection of multiple systems you can simultaneously use SNMP-agent, which is directly connected to the local network LAN 10/100. In this mode graphical interface is available; it allows you to monitor parameters such as voltage, current, charge percentage and battery status in real time. Due to network interface, services, which allow the clock to remotely monitor the systems and instantly receive reports of accidents or failures by e-mail or POP are available.

In this mode, if you have a remote access to the network, you can check the overall condition in real time, perform the programmed actions (on / off) and load history of the events of various equipment.

### Connecting on spot via serial port



### Connection via Ethernet TCP/IP LAN/WAN



## Recommended protection devices

An important aspect for the functioning of an uninterruptible power supply is correct calculation of electrical installations to provide reliable protection according to safety standards and working conditions. Below you can find recommended ratings of circuit breakers and sections of input and output cables for different UPS Models with the following cautions:

- differential switches, located on upstream installation lines should be of A or B type with a delay of more than 0.1 seconds and a residual current not less than 300 mA;
- in all Models of SOLO and TRIO series a scheme with an **end-to-end midpoint conductor** is implemented and they **should have a neutral indicator on input**.

### Single-phase UPS

Model	Introductory circuit breaker, A	Maximum input phase current, A	Nominal output current, A	Input cable cross-section at a length of 10 m, mm <sup>2</sup>	Output cable cross-section at a length of 10 m, mm <sup>2</sup>
SOLOMD4	25 (2P) curve C	23	18	4	4
SOLOMD5	32 (2P) curve C	28	22	4	6
SOLOMD6	32 (2P) curve C	34	26	6	6
SOLOMD7	40 (2P) curve C	40	30	6	10
SOLOMD10	63 (2P) curve C	57	44	10	10
SOLOMD12	80 (2P) curve C	68	52	16	16
SOLOMB14	100 (2P) curve C	79	61	16	16

### Three-phase and single-phase UPS

Model	Introductory circuit breaker, A	Maximum input phase current, A	Nominal output current, A	Input cable cross-section at a length of 10 m, mm <sup>2</sup>	Output cable cross-section at a length of 10 m, mm <sup>2</sup>
TRIOTM8	50 (4P) curve C	17	35	3x10	10
TRIOTM10	63 (4P) curve C	22	43	3x10	10
TRIOTM12	80 (4P) curve C	26	52	3x16	16
TRIOTM15	100 (4P) curve C	32	65	3x16	16
TRIOTM20	100 (4P) curve C	43	87	3x25	25
TRIOTM30	160 (4P) curve C	65	103	3x50	50

### Three-phase UPS

Model	Introductory circuit breaker, A	Maximum input phase current, A	Nominal output current, A	Input cable cross-section at a length of 10 m, mm <sup>2</sup>	Output cable cross-section at a length of 10 m, mm <sup>2</sup>
TRIOTT8	25 (4P) curve C	17	12	3x4	3x4
TRIOTT10	25 (4P) curve C	22	14	3x4	3x4
TRIOTT12	25 (4P) curve C	26	17	3x4	3x4
TRIOTT15	32 (4P) curve C	32	22	3x6	3x6
TRIOTT20	40 (4P) curve C	43	29	3x10	3x10
TRIOTT30	63 (4P) curve C	65	43	3x16	3x16
TRIOTT40	100 (4P) curve C	86	58	3x25	3x25
EXTRATT60	160 (4P) curve C	130	87	3x35	3x35
EXTRATT80	200 (4P) curve C	173	116	3x50	3x50
EXTRATT100	250 (4P) curve C	216	145	3x70	3x70
EXTRATT120	250 (4P) curve C	259	174	3x95	3x95

Appearance and overall dimensions

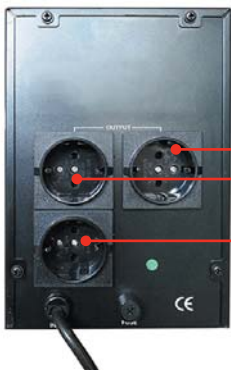
"RAM batt" UPS of Info LED series



Back view  
INFO650SI and  
INFO850SI

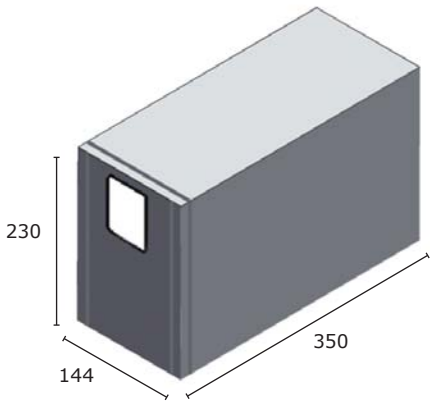


Back view  
INFO1200SI and  
INFO1500SI

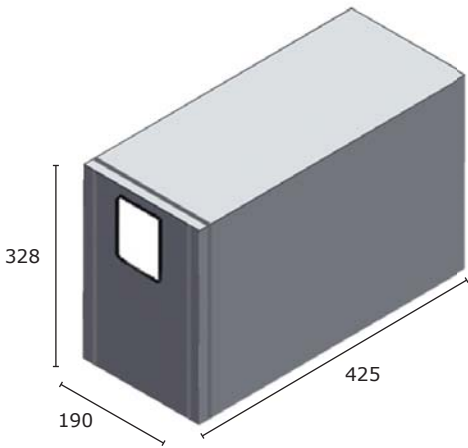


Back view  
INFO2000S and  
INFO3000S

"RAM batt" UPS of Small Basic series



Dimensions  
SmallB1



Dimensions  
SmallB2 and SmallB3

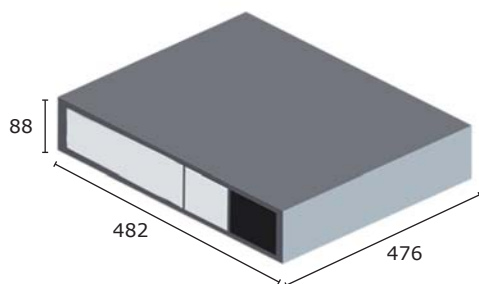


Back view  
SmallB1A10S

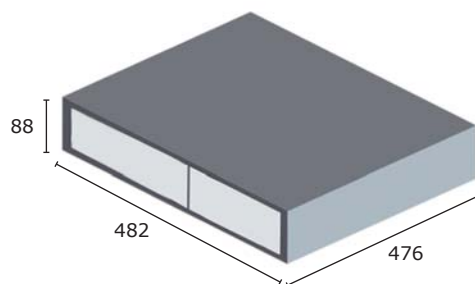


Back view  
SmallB2A10S and  
SmallB3A10S

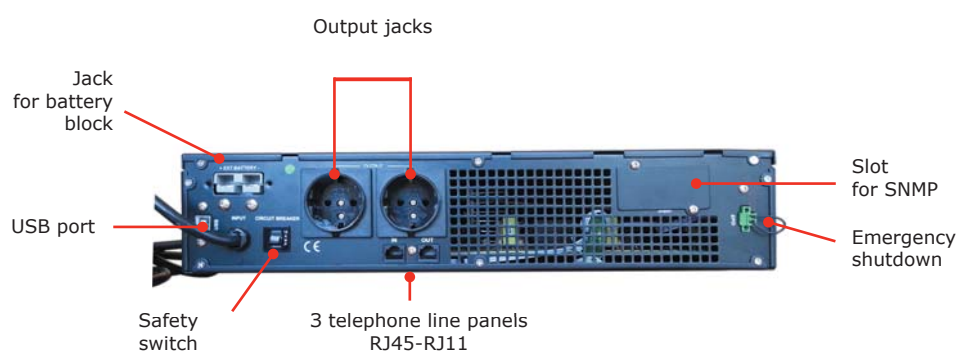
## "RAM batt" UPS of Small Convert series



**Dimensions**  
SmallC1-SmallC2-SmallC3

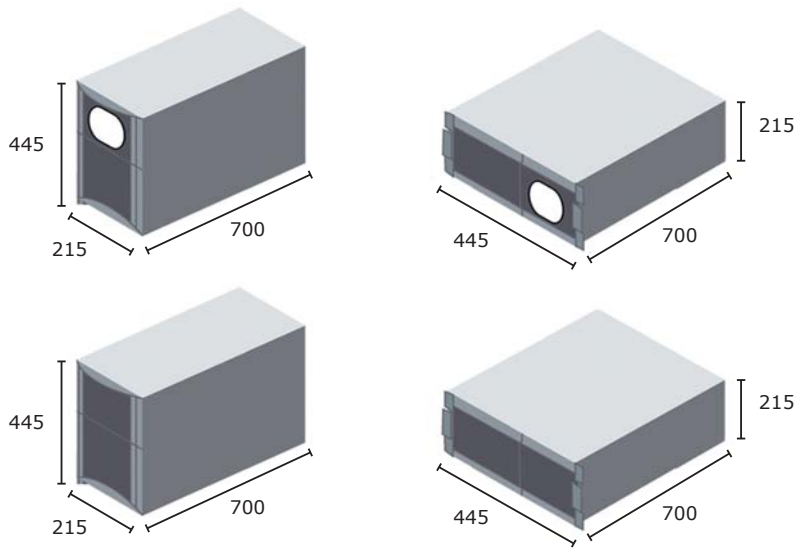


**Dimensions**  
Small Convert battery block

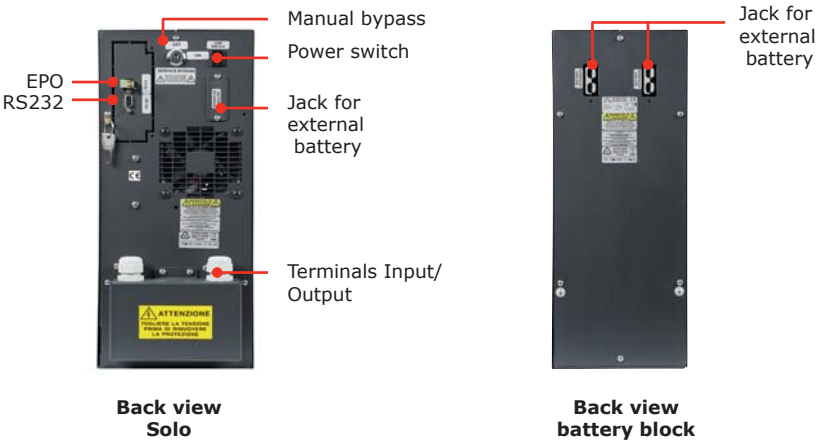


**Back view**  
SmallC1EXTS

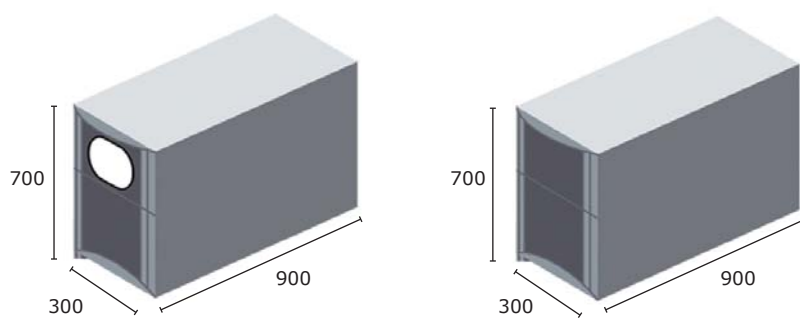
"RAM batt" UPS of Solo MD series



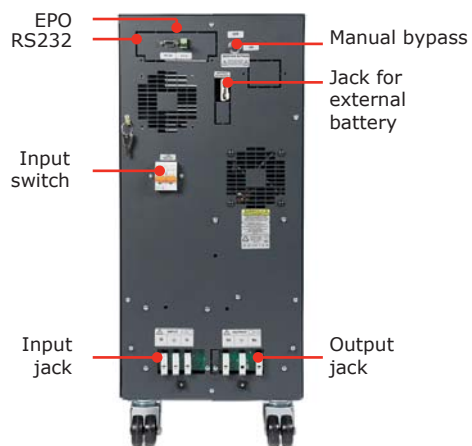
Overall dimensions  
Solo MD



## "RAM batt" UPS of Solo MMB series



**Overall dimensions  
Solo MMB**

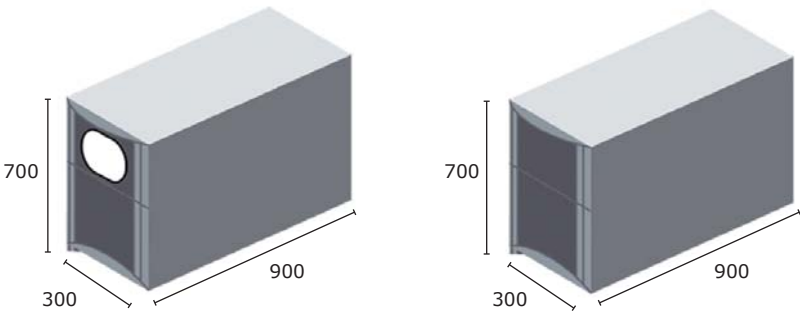


**Back view  
Solo**

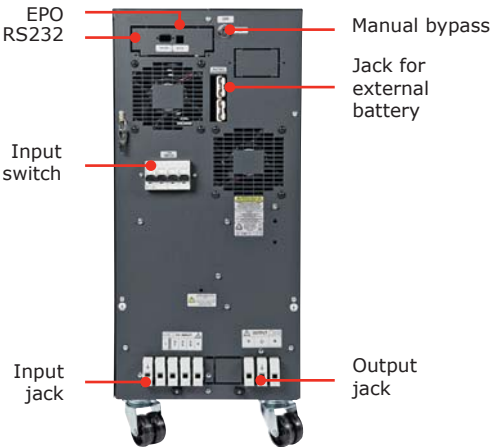


**Back view  
battery block**

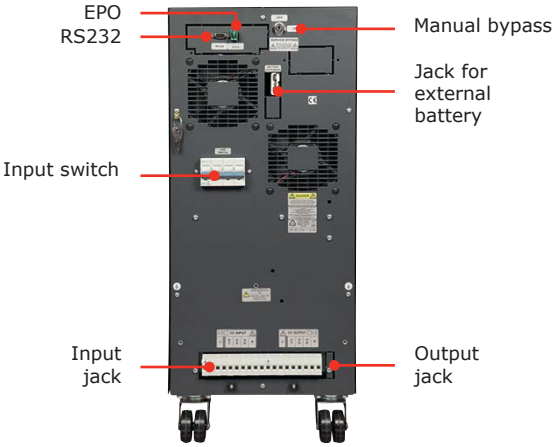
"RAM batt" UPS of Trio series



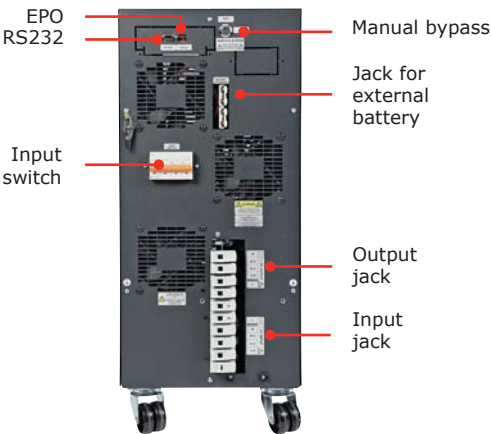
Overall dimensions  
Trio



Back view  
Trio TM



Back view  
Trio TT 8-10-12-15-20



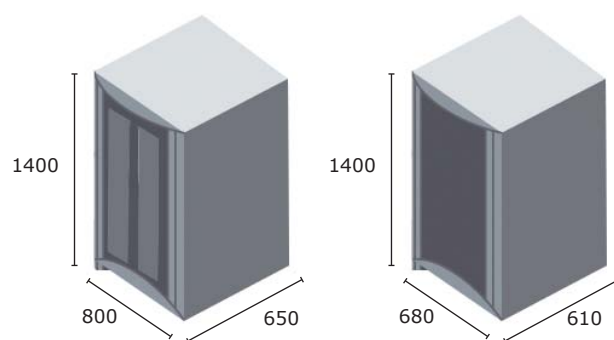
Back view  
Trio TT 30-40



Back view  
battery block



## "RAM batt" UPS of Extra TT series



**Overall dimensions  
EXTRA TT**

Code	Page	Code	Page	Code	Page	Code	Page
6006E-12	37	34046	251	34314	268	35265	55
06551	302	34052	250	34315	268	35266	55
06552	302	34053	250	34316	268	35266	61
30013	100	34054	250	34317	268	35267	55
30014	100	34055	250	35010	58	35267	61
30015	100	34056	250	35012	58	35268	55
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30198	103	34108	248	35023	58	35306	63
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30265	103	34110	247	35025	58	35307	63
30266	103	34111	247	35026	58	35308	56
30267	103	34112	247	35026	62	35308	63
30268	103	34113	247	35027	58	35311	56
30269	103	34114	247	35027	62	35312	56
30270	103	34115	247	35028	58	35313	56
30569	104	34116	247	35028	62	35314	56
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37437	101	37614	86	38062	83	38223	71
37472	74	37615	86	38063	83	38224	71
37473	74	37616	86	38064	83	38225	71
37474	74	37617	86	38065	83	38226	71
37475	74	37618	86	38066	83	38227	71
37476	74	37620	87	38067	83	38228	71
37477	74	37621	87	38068	83	38240	72
37478	74	37622	87	38072	94	38241	72
37501	99	37623	87	38073	94	38242	72
37502	77	37624	87	38074	94	38243	72
37503	77	37625	87	38079	92	38244	72
37504	77	37626	87	38081	92	38245	72
37505	77	37627	87	38082	92	38246	72
37506	77	37628	87	38083	92	38247	72
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36010HDZL	76	36060HDZ	69	36107INOX	69	36166ZL	81
36010INOX	76	36060INOX	69	36107ZL	69	36167HDZ	81
36011HDZL	76	36060ZL	69	36120HDZ	81	36167INOX	81
36011INOX	76	36062HDZ	69	36120INOX	81	36167ZL	81
36012HDZL	76	36062INOX	69	36120ZL	81	36180HDZ	83
36012INOX	76	36062ZL	69	36122HDZ	81	36180INOX	83
36013HDZL	76	36063HDZ	69	36122INOX	81	36180ZL	83
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36014INOX	76	36064HDZ	69	36123INOX	81	36182ZL	83
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36016HDZL	76	36065HDZ	69	36124INOX	81	36183ZL	83
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36017INOX	76	36066HDZ	69	36125INOX	81	36184ZL	83
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36043INOX	68	36102ZL	69	36162HDZ	81	36221INOX	83

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36223HDZ	83	36264INOX	82	36313HDZ	91	36346ZL	95
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36256HDZ	82	36309ZL	91	36343HDZ	95	36376ZL	93
36256INOX	82	36310HDZ	91	36343ZL	95	36377HDZ	95
36256ZL	82	36310ZL	91	36344HDZ	95	36377ZL	95

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36405HDZ	95	36490INOX	99	36558INOX	102	36685INOX	70
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36433HDZ	91	36542HDZL	102	36662INOX	70	36720ZL	71
36433ZL	91	36542INOX	102	36662ZL	70	36722HDZ	71
36443HDZ	95	36543HDZL	102	36663HDZ	70	36722INOX	71
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36444ZL	95	36544INOX	102	36664HDZ	70	36723INOX	71
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36470ZL	99	36553HDZL	102	36681ZL	70	36741HDZ	71
36477HDZ	93	36553INOX	102	36682HDZ	70	36741INOX	71
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36743HDZ	71	36802INOX	72	36861ZL	73	37006INOX	77
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36748INOX	71	36807ZL	72	36867HDZ	73	37014ZL	77
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36788ZL	72	36848HDZ	73	37004ZL	77	37044HDZ	79
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37047ZL	79	37107HDZ	84	37148INOX	79	37207ZL	90
37048HDZ	79	37107INOX	84	37148ZL	79	37221HDZ	89
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37061HDZ	80	37108INOX	84	37161ZL	85	37222HDZ	89
37061INOX	80	37108ZL	84	37162HDZ	85	37222INOX	89
37061ZL	80	37112HDZ	84	37162INOX	85	37222ZL	89
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37076INOX	80	37126ZL	78	37177HDZ	85	37240INOX	103
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37077INOX	80	37127ZL	78	37178HDZ	85	37242ZL	90
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37101INOX	84	37142ZL	79	37202HDZ	90	37244ZL	90
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37254INOX	90	37345HDZ	90	37383INOX	88	37504INOX	77
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37256INOX	90	37347HDZ	90	37390INOX	100	37506INOX	77
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37257HDZ	90	37347ZL	90	37391INOX	100	37507HDZ	77
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37261INOX	103	37351INOX	101	37393INOX	100	37508INOX	77
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37263INOX	103	37353INOX	101	37395INOX	100	37513ZL	84
37264HDZL	103	37354HDZL	101	37396HDZL	100	37514HDZ	84
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37265INOX	103	37355INOX	101	37397INOX	100	37515HDZ	84
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37269INOX	103	37370INOX	74	37432INOX	101	37517ZL	84
37270HDZL	103	37370ZL	74	37433HDZL	101	37518HDZ	84
37270INOX	103	37371HDZ	74	37433INOX	101	37518INOX	84
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37574HDZ	74	37604INOX	86	37632ZL	87	38004HDZ	68
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38307INOX	84	38364INOX	82	38401ZL	87	6006-32A	37
38307ZL	84	38364ZL	82	38402HDZ	87	6006-32XX	37
38308HDZ	92	38365HDZ	82	38402INOX	87	6006-40	37
38308ZL	92	38365INOX	82	38402ZL	87	6006-40XX	37
38309HDZ	84	38365ZL	82	38403HDZ	87	6006-50	37
38309INOX	84	38366HDZ	82	38403INOX	87	6006-50XX	37
38309ZL	84	38366INOX	82	38403ZL	87	6006-63	37
38310HDZ	94	38366ZL	82	38404HDZ	87	6006EMC-12A	37
38310ZL	94	38367HDZ	82	38404INOX	87	6006EMC-16A	37
38313HDZ	94	38367INOX	82	38404ZL	87	6006EMC-20	37
38313ZL	94	38367ZL	82	38405HDZ	87	6006EMC-25	37
38315HDZ	94	38368HDZ	82	38405INOX	87	6006EMC-32A	37
38315ZL	94	38368INOX	82	38405ZL	87	6006EMC-40	37
38316HDZ	94	38368ZL	82	38407HDZ	87	6006EMC-50	37
38316ZL	94	38369HDZ	82	38407INOX	87	6006EMC-63	37
38322HDZ	85	38369INOX	82	38407ZL	87	6008-16L3	24
38322INOX	85	38369ZL	82	38408HDZ	87	6008-20L3	24
38322ZL	85	38381HDZ	86	38408INOX	87	6008-25L3	24
38323HDZ	85	38381INOX	86	38408ZL	87	6008-32L3	24
38323INOX	85	38381ZL	86	38412HDZ	87	6008-40L3	24
38323ZL	85	38382HDZ	86	38412INOX	87	6008-50L3	24
38324HDZ	85	38382INOX	86	38412ZL	87	6008-63L3	24
38324INOX	85	38382ZL	86	38413HDZ	87	6013-16L	28
38324ZL	85	38383HDZ	86	38413INOX	87	6013-16X	28
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38328ZL	85	38387HDZ	86	39002ZL	96	6013-40XX	28
38341HDZ	74	38387INOX	86	39003INOX	96	6013-50	28
38341INOX	74	38387ZL	86	39003ZL	96	6013-50X	28
38341ZL	74	38390HDZ	86	39004INOX	97	6013-50XX	28
38342HDZ	74	38390INOX	86	39004ZL	97	6013-63	28
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38342ZL	74	38391HDZ	86	39005ZL	97	6014-1016G	19
38343HDZ	74	38391INOX	86	39006INOX	97	6014-1216G	19
38343INOX	74	38391ZL	86	39006ZL	97	6014-1616	19
38343ZL	74	38392HDZ	86	53341R	30	6014-16A	19
38344HDZ	74	38392INOX	86	53342R	30	6014-2020	19
38344INOX	74	38392ZL	86	53343R	30	6014-20A	19
38344ZL	74	38394HDZ	86	53344R	30	6014-20G	19

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6014-6350G	19	6028-40G	38	6051-50	34	6097L40B	28
6014P10M120509	21	6028-50G	38	6051-63	34	6097L50B	28
6014P10M160509	21	6028-63G	38	6052-16A	33	6097L63B	28
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6014P12M120509	21	6030-20	41	6052-25	33	6110-16XX	25
6014P12M160509	21	6030-25	41	6052-32A	33	6110-20N	25
6014P12M200812	21	6030-32A	41	6052-40	33	6110-20XX	25
6014P16M120509	21	6030-40	41	6052-50	33	6110-25N	25
6014P16M160509	21	6030-50	41	6060-1522	38	6110-25XX	25
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6014P22M200812	21	6040-002	32	6060-3238	38	6110-40	25
6014P22M201116	21	6040-003	32	6060-4050	38	6110-40XX	25
6014P22M251116	21	6040-004	32	6060-5060	38	6110-50	25
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6015-2527	20	6040-50	32	6070-50	14	6111P16M120509	27
6015-3235	20	6040-60	32	6070-50N	14	6111P16M160509	27
6015-32A	20	6040-P01	31	6071-010	13	6111P16M200812	27
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6015-50	20	6040-P04	31	6071-012N	13	6111P20M251116	27
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6117-16N	26	BBA1005INOX	247	BBD2120INOX	250	BBH6030HDZ	252
6117-2020	26	BBA1005ZL	247	BBD2120ZL	250	BBH6030INOX	252
6117-20N	26	BBA1010	247	BBD2130	250	BBH6030ZL	252
6117-2527	26	BBA1010HDZ	247	BBD2130HDZ	250	BBH6040	252
6117-25N	26	BBA1010INOX	247	BBD2130INOX	250	BBH6040HDZ	252
6117-3235	26	BBA1010ZL	247	BBD2130ZL	250	BBH6040INOX	252
6117-32N	26	BBA1015	247	BBD2140	250	BBH6040ZL	252
6117-40	26	BBA1015HDZ	247	BBD2140HDZ	250	BBH6050	252
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6117-50	26	BBA1015ZL	247	BBD2140ZL	250	BBH6050INOX	252
6117-5040	26	BBA2020	247	BBD2150	250	BBH6050ZL	252
6117-63N	26	BBA2020HDZ	247	BBD2150HDZ	250	BBH6060	252
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6117XX25N	26	BBA2030	247	BBD2150ZL	250	BBH6060INOX	252
6117XX32N	26	BBA2030HDZ	247	BBD2160	250	BBH6060ZL	252
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6330-16A	41	BBA2040HDZ	247	BBD2160ZL	250	BBH7020INOX	252
6330-20	41	BBA2040ZL	247	BBD4100HDZ	253	BBH7020ZL	252
6330-25	41	BBA2050	247	BBD4120HDZ	251	BBH7030	252
6330-32A	41	BBA2050HDZ	247	BBD4130HDZ	251	BBH7030HDZ	252
6330-40	41	BBA2050ZL	247	BBD4140HDZ	251	BBH7030INOX	252
6330-50	41	BBA2060	247	BBD4150HDZ	251	BBH7030ZL	252
6430-16A	42	BBA2060HDZ	247	BBD4160HDZ	251	BBH7040	252
6430-20	42	BBA2060ZL	247	BBD4170HDZ	253	BBH7040HDZ	252
6430-25	42	BBA3010	248	BBD4180HDZ	253	BBH7040INOX	252
6430-32A	42	BBA3010HDZ	248	BBD4190HDZ	253	BBH7040ZL	252
6430-40	42	BBA3010INOX	248	BBF5001HDZ	255	BBH7050	252
6430-50	42	BBA3010ZL	248	BBF5002HDZ	256	BBH7050HDZ	252
653021H	43	BBA3015	248	BBF5010	255	BBH7050INOX	252
653022H	43	BBA3015HDZ	248	BBF5010HDZ	255	BBH7050ZL	252
653023H	43	BBA3015INOX	248	BBF5010INOX	255	BBH7060	252
653024H	43	BBA3015ZL	248	BBF5010ZL	255	BBH7060HDZ	252
653025H	43	BBA3020	248	BBF5015	255	BBH7060INOX	252
653026H	43	BBA3020HDZ	248	BBF5015HDZ	255	BBH7060ZL	252
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667M5054	12	BBA3040HDZ	248	BBF5030HDZ	255	BBL4015	248
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66BTP12	23	BBA3040ZL	248	BBF5030ZL	255	BBL4015ZL	248
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66BTP22	23	BBC3010HDZ	248	BBF5040HDZ	255	BBL4020HDZ	248
66BTP32	23	BBC3010INOX	248	BBF5040INOX	255	BBL4020ZL	248
66BTP38	23	BBC3010ZL	248	BBF5040ZL	255	BBL4030	248
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6700-50L4	24	BBC3020ZL	248	BBF5060ZL	255	BBL5015HDZ	249
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6700A-20L3	24	BBC3030HDZ	248	BBF6030HDZ	256	BBL5015ZL	249
6700A-25L3	24	BBC3030INOX	248	BBF6040HDZ	256	BBL5020	249
6700A-32L3	24	BBC3030ZL	248	BBF6050HDZ	256	BBL5020HDZ	249
6700A-40L3	24	BBC3040	248	BBF6060HDZ	256	BBL5020INOX	249
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BBL5550HDZ	249	BBP4150	251	BHT2212	274	BMM1010ZL	268
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BBL5560	249	BBP4150ZL	251	BHT2500	274	BMM1015INOX	268
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BBM5015	249	BBS4190HDZ	253	BHT3100	273	BMM1030INOX	268
BBM5015HDZ	249	BHL0814	269	BHT3110	273	BMM1030ZL	268
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BBM5020HDZ	250	BHL3238	269	BHT3160	273	BMM1040ZL	268
BBM5020INOX	250	BHL3844	269	BHT3200	273	BMM1050	268
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BBM5030	250	BHL5056	269	BHT3315	273	BMM1050INOX	268
BBM5030HDZ	250	BHL5662	269	BHT3350	273	BMM1050ZL	268
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BBP2160HDZ	250	BHT1512	274	BMD2011HDZ	246	BMP1050ZL	266
BBP2160INOX	250	BHT1515	274	BMD2031HDZ	246	BMS1005	266
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